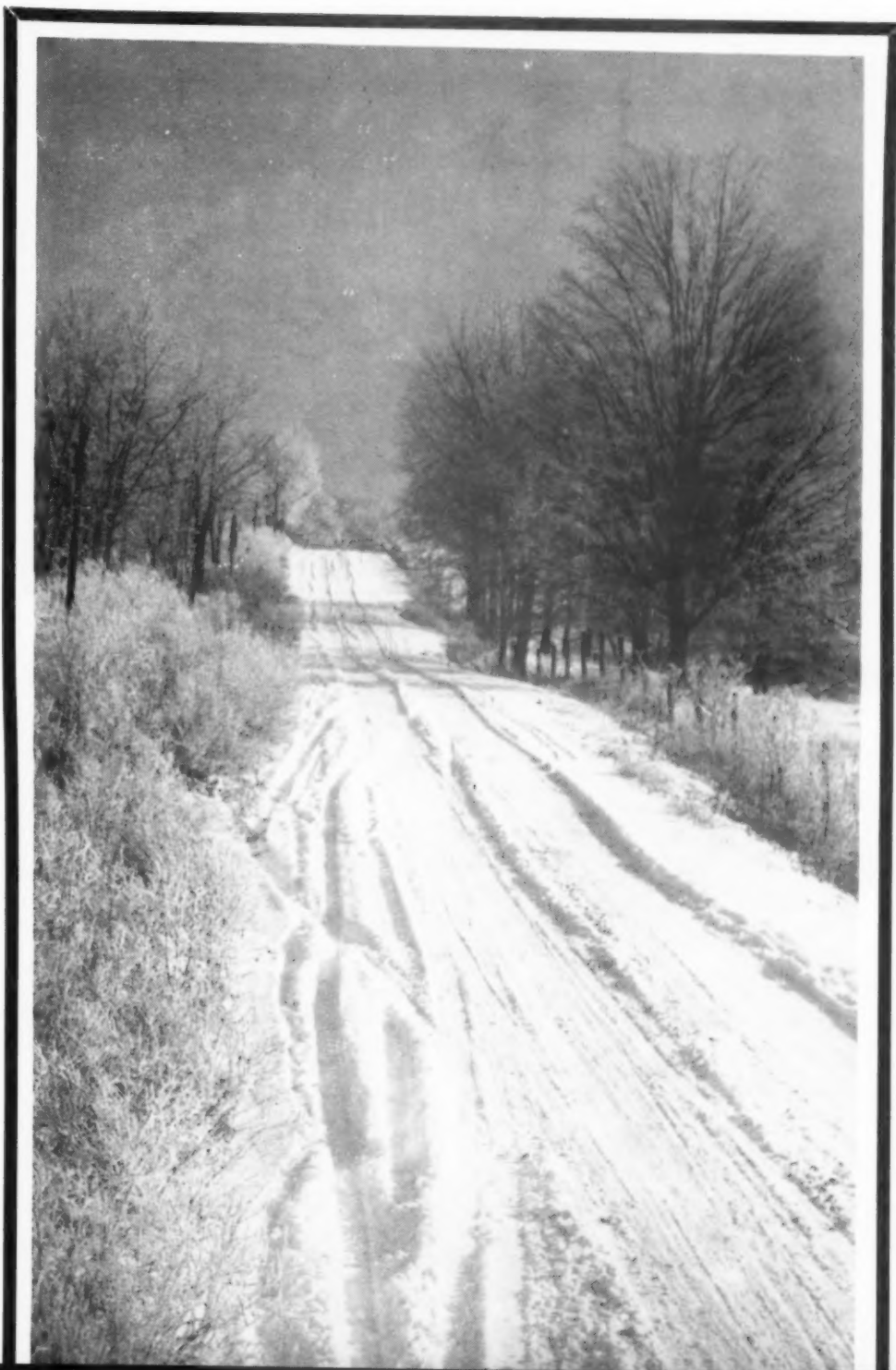


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# AMERICAN BEE JOURNAL

January, 1946



R V. 86 1946

Wishing You

A

Happy

and

Prosperous

New Year

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COUNCIL BLUFFS, IOWA

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Sections, hive bodies, frames, foundation, containers and other bee supplies of the finest quality.

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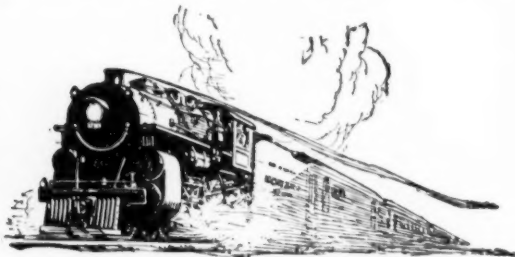
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#### 1946 PRICES

Lot	Queens	2-Lbs.	3-Lbs.	4-Lbs.	5-Lb.
1- 5	\$1.35	\$4.25	\$5.25	\$6.25	\$7.25
5-15	1.30	4.15	5.15	6.15	7.15
15-25	1.20	4.00	5.00	6.00	7.00
25 up	1.15	3.90	4.90	5.90	6.90

Above package prices include queen. Queenless packages, subtract \$1.15 from price of package with queen. All queens airmail, postpaid, but package bees are F. O. B. shipping point and are shipped collect. It is preferable to ship package bees by Railway Express, however, they can be mailed and in that event, customers should include postage.

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4-lb. pkg. with queen	6.15	6.05	6.00	5.70
Extra queens	1.35	1.30	1.25	1.15

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2-lb. pkg. with queen, each	\$3.90	\$3.65	\$3.50	\$3.35
3-lb. pkg. with queen, each	4.90	4.65	4.50	4.35
Extra queens, untested, \$1.00, any quantity—Tested, \$2.00, any quantity.				
For queenless packages deduct \$1.00—For special loose-queen packages, add \$1.00.				

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25-99	1.15	3.75	4.75
100 up	1.05	3.50	4.50

We guarantee full weight packages, young vigorous bees with their working life ahead, no supersedure in our queens, health certificate with each shipment, 100% perfect satisfaction guaranteed in every respect. For "HIGHEST PRIME QUALITY", PROMPT SHIPMENT we feel free to say we are surpassed by none. Book your orders now for your requirements if possible. We are working each day now to fulfill your requirements for 1946, where orders are placed in advance enables us to know what shipments must go out each day in shipping season. THANK YOU.

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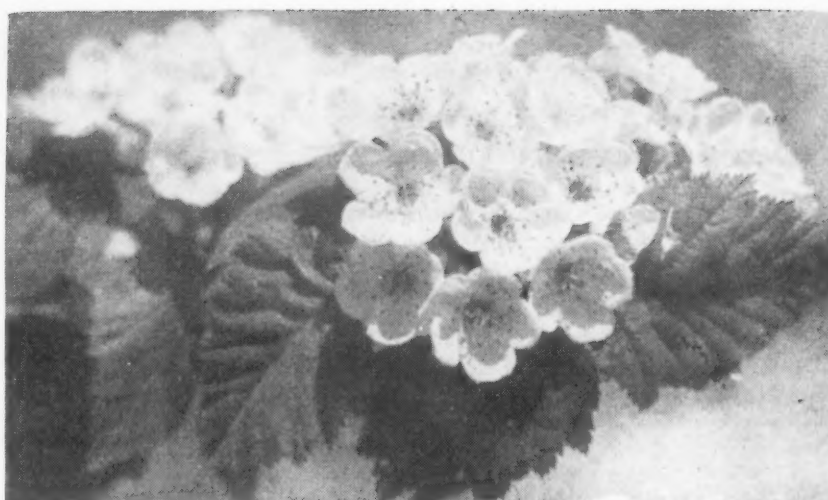
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HAMBURG, LOUISIANA



# American Bee Journal

HAMILTON, ILLINOIS

January, 1946

Volume LXXXVI, No. 1

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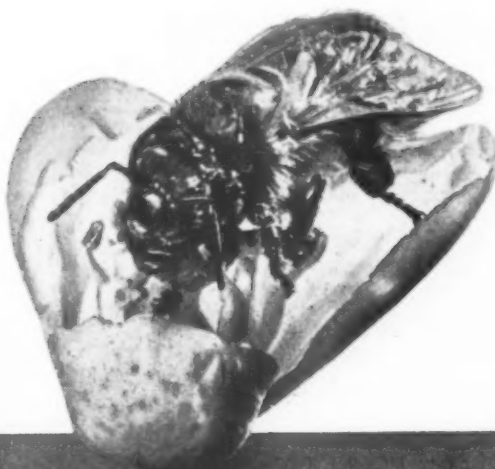
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10-24	3.60	4.60	1.05
25-99	3.55	4.55	1.00
100 and up	3.45	4.45	.95

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We need men of authentic talent who are above the necessity of tearing down the work of others in order to build up their own reputations.

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1-24	\$1.25	\$4.00	\$5.10	\$6.20	\$7.30
25-99	1.15	3.75	4.80	5.85	6.90
100-up	1.05	3.50	4.50	5.50	6.50

AFTER MAY 20TH

Lots of	Queens	2-lb.	3-lb.	4-lb.	5-lb.
1-24	\$1.10	\$3.85	\$4.95	\$6.05	\$7.15
25-99	1.00	3.60	4.65	5.70	6.75
100-up	.90	3.35	4.35	5.35	6.35

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If interested in 50 or more write for prices.

## Caucasian Apiaries

Castleberry, Ala.



Seeds and leaf of castor bean.

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Keep up with the latest developments in your field? Here's a group of magazines that specialize in a particular subject! You'll be interested in at least one of these magazines . . . and you have the assurance that the articles are written by people who know. Send in your subscriptions today!

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## The Truth About 1946

# WOOD BEE SUPPLIES

If you are planning to make increase in 1946 make sure you can get your wooden goods before you go ahead. A very bad situation exists right now, in that the factories cannot get lumber enough to operate all machines much of the time.

Suitable lumber for bee supplies, within costs that can be cut profitably under present OPA ceilings on bee supplies, comes only from the northwestern states. For some weeks those mills have been shut down by a strike and this strike continues as we go to press. This has cut off lumber supplies, and until it is settled and the mills again resume operation, little lumber will be available.

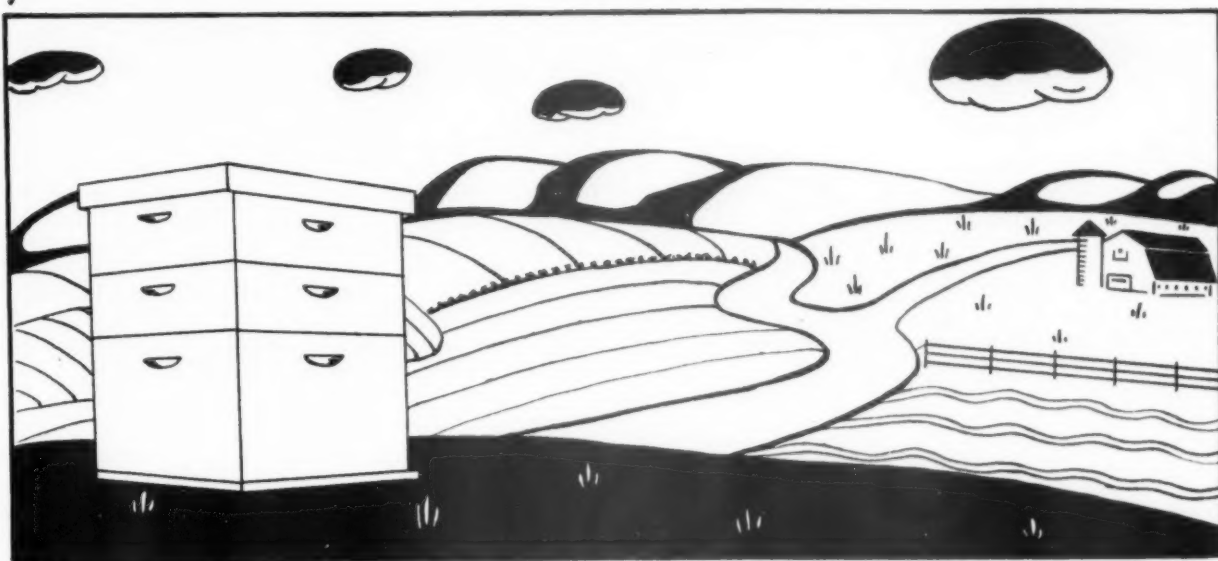
Since the sale of bee supplies comes largely in spring, bee supply factories have always had to run 12 months in the year and fill their warehouses to supply adequately during this short shipping season. This we have not been able to do all fall and cannot do until lumber again becomes fully available. It is a situation over which we have no control but which we hope will better early in 1946.

*In any event supplies made of wood will be scarce in 1946, as it will be impossible to take care of all who need goods, since we have already missed too much of our manufacturing time. However, we will do the best we can. Watch this space for information about wood supplies when we can again get ample lumber.*

## G. B. LEWIS COMPANY

WATERTOWN, WISCONSIN

Box 825, Albany, 1, N. Y.; Box 683, Lynchburg, Va.;  
214 Pearl St., Sioux City, 14, Iowa



## Farming With Bees

By Wilbur L. duBois

THE production of alfalfa and clover seed in this country is in a bad way and unless the honeybee comes to the rescue the present acute shortage of these legumes will continue to harass our farmers. Serious failures in these crops have become a matter of grave concern to our agriculture and have contributed materially to the high prices of meat and dairy products. The situation has become so alarming that at the request of worried farmers the National Council of Farmers' Cooperatives is asking the Budget Bureau for \$500,000 a year for legume research, \$150,000 of which is to be used to investigate the part that bees play in this role. One of the critical phases of this research will be to find ways and means of boosting seed production many fold.

That this is basically necessary is shown by a few startling figures. A good stand of red clover carries enough blossoms to produce 10 to 12 bushels of seed to the acre, and such yields have been obtained, but this has dropped to a country average of only 0.89 bushel per acre. In Utah, a famous alfalfa state, the yield of this seed is down from 24 million bushels a year to 4 million bushels in the same period. Similar comparisons can be made of seed production of other legumes. Seed dealers report that they are short 50 to 60 per cent of normal requirements.

Now there is a world of difference between 10 bushels and 1 bushel of clover seed to the acre and thereby hangs the tale. Since the seed comes before the plant a big increase in seed production will have to proceed the larger volume of legume crops so necessary today.

Seed setting of most legumes depends on many factors which bear some relation to each other. Little is known about them, however. Until all the elements of the problem are understood and industriously applied to increasing seed yields there can be little hope for adequate production of superior adapted varieties of legumes which will make the volume of these crops sufficient for the demands of livestock feeding and soil conservation.

But we get a break here. Fortunately the conditions on which depend the production of leguminous seed are not completely shrouded in mystery. One vital factor is well understood by entomologists who know, and preach vocally, that the setting of seed in most leguminous plants is dependent on cross pollination by insects. All agriculturally important plants in this class are self-sterile and need the help of visiting insects to distribute the pollen from plant to plant. Without this effective transfer of pollen from flower to flower the seeds will not develop. Fully fifty

farm and orchard crops are dependent on insects for their reproduction. But these facts have been generally unknown or ignored by farmers and many of their scientific helpers.

In several studies in the field honeybees were found to account for upwards of 80 per cent of the pollination of alfalfa and clover, but there was a time when bumblebees, solitary bees, and other wild pollinating insects played an important role. Bee for bee most of these insects are more effective pollen distributors than the honeybee. They can work, for example, when it is too cold for the honeybee to stray from the comforts of home.

But this fact, too, has not been fully appreciated. Farm boys still fight bumblebees and destroy their nests and eat the honey. We used to indulge in this exciting sport ourselves and basked under the praise of our grandfather who little knew the effect of our successful campaigns on the yield of his clover field.

But bumblebees and other wild insects important in crop pollination are doomed to extinction unless their value is recognized and measures taken to conserve them. They nest in or close to the ground. The corners of the old rail fence were favorite places for them to set up housekeeping. The rail fence, however, is no longer in vogue and fence rows are

clean. The planting of large areas to single crops has deprived the bees of a succession of food and suitable nesting places. Practically none of these insects is able to store enough food to bridge over the gap in flowering periods such as occurs in large, unmixed plantings. Starvation is the result. Forest and brush fires, clean cultivation and other modern agricultural practices also take their toll of ground-nesting species.

So most of the burden of distributing the pollen falls on the honeybee. But many and sundry obstacles must be overcome before there are enough bees flying around our fields effectively to carry this burden.

Outstanding among these obstacles is the fear that many people have of the bees themselves. Law or no law the workers carry concealed weapons which they are prone to use, sometimes not too intelligently. Interference with their activities, whether intentional or not, is apt to bring stinging retaliation to man or beast and many farmers are afraid to have them close enough to their crops to do any good. Apiarists are willing to move colonies of bees onto farms needing their help but this is often mistakenly resisted by the farm managers. Utah at one time had an embargo on the importation of bees into the state. A better understanding of the ways of bees would remove much of this fear.

The mistake is made, too, of planting cover crops which are more attractive to the bees than those needing their services. When mustard is blooming in an orchard, for instance, the bees work the mustard and neglect the fruit blossoms. In Germany and Russia some progress has been made in training bees to work on certain prescribed blossoms but our bee

science has not progressed that far and the bees follow their own preferences. After all they are interested principally in storing up food for the family.

Another obstacle to be overcome is the high bee mortality from poisonous sprays. In many sections of the West, extensive spraying of farm crops with arsenicals has destroyed thousands of colonies. In 1943 dusting operations on cotton and tomato crops in Arizona and California were responsible for the death of more than 10,000 colonies. Mr. James I. Hambleton, in charge of research work on bee culture for the United States Department of Agriculture, has this to say about this serious hazard:

"The destruction of bees has become so serious in certain areas that beekeepers and beekeepers' organizations are seeking redress through legal means. Such a procedure may have far-reaching effects. To what extent, for example, is a person justified in protecting his crop through the use of arsenicals if by so doing he destroys the wild, pollinating insects, not only on his own land but on the lands of his neighbors, and in addition compels beekeepers to move their apiaries out of flight range of the crop? To deprive a farming community of pollinating insects must be as serious an offense as to permit, unchecked, the ravages of destructive insects."

We asked Mr. Hambleton how many more colonies of bees would be needed to provide adequate pollination of farm and orchard crops. His off-hand estimate was that the present bee population should be doubled. That would mean a total of upwards of 10 million colonies with a honey production of nearly 500 million pounds yearly under the

present methods of apiary management.

What to do with all this honey would be a serious problem. There has been no national advertising of honey to keep pace with the hundreds of pages in our magazines extolling the merits of other foods. So the public has not been educated to the superior qualities of honey and will not buy it unless the price is close to that of sugar. But at this low price there is not enough profit to the beekeeper to encourage expansion of his apiary.

This is the dilemma and there are three horns to it. The country needs to double its production of legumes. This can't be done without an enormous increase in the size and number of our apiaries. But economic conditions normally prevailing in the honey business discourages this necessary increase.

This building up of our honey-producing plants to twice their present capacity is so vital, however, that many experts feel that a government subsidy may be necessary to encourage the keeping of bees. This might cost tax payers half a million dollars or so a year but this would be small charge compared to the 47 million dollars paid out by the government the past two years to encourage farmers to grow more legumes. Agriculturally it would be a good bet even if the excess honey had to be made into alcohol or dumped into the river.

So in the last analysis much of the burden of greater legume production rests on the honeybee colony. Unless this humming industry is built up into a major agricultural business the outlook is gloomy indeed. The Council is giving serious thought to ways and means of bringing this about.

## Arkansas Bee Laws

A letter from Mr. A. Gay of State Apiary Board of Little Rock, Arkansas, gives some explanation of state bee laws, under which Mr. Gay is operating.

In order to enter the state or cross through the state, a certificate of inspection and a clean bill of health is necessary from the state from which the beekeeper comes.

It will be necessary to inform the state inspector where and when the entrance into the state is going to be

and have a permit to use the location he anticipates using.

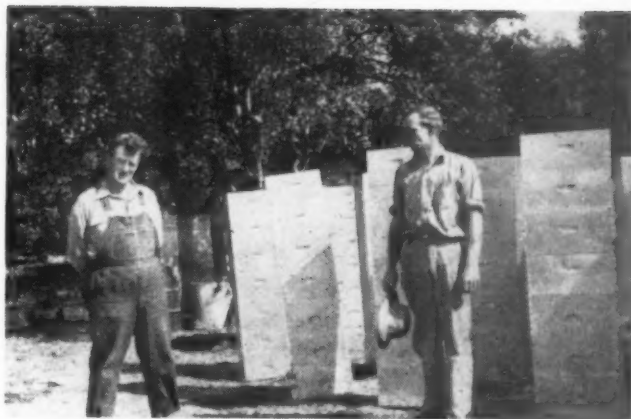
All colonies of bees entering the state are subject to inspection and a fee of 25 cents per colony will be paid to the state inspector on entering the state.

If any colonies are infected, the entire apiary will be removed to an isolated location and quarantined for six months.

Further particulars can be had by addressing Mr. A. Gay, Inspector of Apiaries, Room 346 State Capitol, Little Rock, Arkansas.

## A. H. Alex Succeeds Parks

A. H. Alex, who has been associated with the Texas State Apicultural Research Laboratory since it was started and who has also been closely associated with Professor H. B. Parks, has been named acting Chief of the Division of Apiculture. Mr. Alex has been the official queen breeder and also closely associated with the government in the breeding of disease resistant bees.



We visit W. C. Wahl and Millard Cogshall, of New York.



We help Wahl build his Florida honey house.



We keep a date with the Miami king mackerel.



We visit the beautiful Silver Springs.



A typical scene in Central Florida.

## Following the Birds

By Charles Mraz

**F**OR a number of years many beekeepers have caught the migrating instinct of the birds and spend their winters in the South. The fortunate beekeepers who have produced a good crop this season have no doubt already sold it all for a good price and with their pockets full of folding money and nothing to do until spring, it seems the birds will have lots of new company this spring. Most migrating north central and eastern beekeepers no doubt go to Florida. Some go to Texas and any who come under the influence of Woodrow Miller na-

turally cannot conceive of spending the winter anywhere in the world, except California. Woodrow, I think, simply considers Florida a geographical accident and no self-respecting beekeeper should be seen there. All us poor northerners can do, I guess, is to go see for ourselves.

My experience consists only of two trips to Florida, in 1940 and 1945, so I cannot speak with any great authority, except to those who know less about it than I do. There are some who do not like the South, but any beekeeper with the time and a little

extra cash will find such a trip very well worthwhile. If one had to travel by train it might not be worth while because of the inconvenience of traveling around after getting there. Now that gas rationing is off one needs only to worry about tires for a little while. As for cash, it need not cost any more than living at home if one keeps away from the expensive tourist cities. As for any particular location, it is a matter of personal choice, the east or west coast or the interior. The newcomer should see

all of it, or at least as much as he can before making a choice.

Of special interest to the beekeeper, is of course, the orange country in the central part of the state. When March comes and orange blossoms drip with nectar and covers the land with its sweet, heavy fragrance, there isn't a beekeeper who doesn't wish he had his bees there to gather the golden harvest.

For some years now many northern beekeepers have put these wishes into practice and truck their bees south in the fall, for winter, harvest an orange crop then take them north

again for the clover. It has developed into quite a big business. There is a tendency for some, however, to leave their bees in the North and South avoiding the terrific job of hauling bees and equipment, and which is better is a debatable subject which must be argued with years of experience.

My interest in the South hasn't yet gone this far. I work hard enough in the summer so that I have no desire yet to also work all winter. While it does interfere with skiing and ice fishing I do hope to go South again this winter for a while and sit under the shade of fifty orange trees on the

shores of Lake Minnehaha, which I have already acquired, and live on orange juice. And must also keep a date with some king mackerel and sail fish in the blue ocean waters of the Gulf Stream.

There is one very nice feature of the bee business, one can get away occasionally and where ever we go we need never be alone. We need only to look for another beekeeper anywhere in the country, and we find ourselves among friends, and beekeepers will find a lot of friends in Florida.

Vermont.



E. C. Martin, new Manitoba Apiarist.

## E. C. Martin, New Manitoba Apiarist

Mr. E. C. Martin, B. S. A., M. S., formerly lecturer in Entomology at The University of Manitoba, Winnipeg, was appointed Provincial Apiarist for Manitoba on November 1st, 1945. Mr. Martin studied at the Ontario Agricultural College and after graduation attended Cornell University where he took his Master of Science degree in Apiculture, under Dr. E. F. Phillips. In 1942, while at The University of Manitoba, he enlisted as a Lieutenant in the Canadian Navy. Upon his discharge he received the appointment of Provincial Apiarist.

Mr. Martin has had a wide experience in practical beekeeping in Ontario and in Manitoba. He is well qualified to deal with the many problems that face the honey producer at the present time and that will continue to confront the industry in the

future. Mrs. Martin is a graduate of Iowa State College who, previous to her marriage, lectured in Art in the Faculty of Agriculture and Home Economics, at The University of Manitoba.

## Washington State Ass'n.

The Washington State Association met December 4 and 5 with an unusually good attendance. The meeting was at Wenatchee with the State Horticultural Association, so that the beekeepers might make the acquaintance and friendship of an allied organization.

The report of Inspector George N. Paige, showed a marked improvement in disease and the most thorough inspection the state has ever had. Training was given the inspectors for eight districts of the state at the start of the season. Each inspector has done much education work with individuals. An improved system of records and methods of inspection will give a foundation for continuation of the efficient service. Large scale tests are also being made with sulfathiazole which is expected to be very beneficial in the control of disease.

The prewar custom will be revived for holding a midsummer meeting and picnic at Lake Tipsoe near the summit of Natches Pass. The next annual meeting will be December 3-4, 1946, also in conjunction with the State Horticultural Association and in circuit with the Oregon Association, which will meet December 6-7. Ten members of Washington State attended the important Oregon meeting this year.

Election of officers for 1946: President, H. S. Records, 1506 Thirty-Sixth Street, Everett, Washington; Vice-President, Mrs. Glen Miller, Clarks-

ton, Washington; Secretary-Treasurer, Howard Graff, Bow, Washington. H. S. Records.

## No Indiana Meeting

Professor Montgomery at Purdue, states, "After some discussion we have decided to suspend the meetings for beekeepers during Agricultural Conference Week, this year. The Conference program will include a heading 'Beekeepers' under which there will be a note suggesting that all Indiana Beekeepers who can attend a meeting at that time may attend the National Beekeepers Meeting at Indianapolis, at the Severin Hotel."

## Bergen County (N. J.)

The Bergen County Branch of the New Jersey State Beekeepers Associations, meeting in Hackensack, October 27, elected William H. Haupt of West Englewood, new president, succeeding Edward Hufnagel. Other officers: Anthony Frey, Teaneck, vice-president; Fred Gasso, treasurer; and T. Tukey, secretary. There were 150 persons at this meeting, with speakers, Paul W. Holcombe and Elmer G. Carr.

## Southeastern Washington

The annual election of Southeastern Washington Association was held November 16. W. H. Bristol, Lewiston, Idaho, president; George Smith, Clarkston, Washington, vice-president; Mrs. Glen Miller, Clarkston, Washington, secretary-treasurer and Mrs. Howard Gay, Association Co-ordinator. Reports were made on the use of sulfathiazole.

Mrs. Glen Miller, Sec.



Floyd way back when Manitoba was still unfamiliar.



In the midst of his long career.



Floyd today, still the genial friend of all Manitoba beekeepers.

## Manitoba Apiarist Retires

By A. V. Mitchener,  
The University of Manitoba

**MR. L. T. FLOYD** has retired after serving twenty-four years as Provincial Apiarist of Manitoba. When he arrived here in 1921, honey production was in its infancy. The record indicates that there were 560 beekeepers handling 14,721 colonies with a production of 903,000 pounds of honey in that year. Those who ate honey at that time preferred to buy the honey that was shipped in from Eastern Canada. Floyd set himself the task of increasing production and of putting Manitoba honey on the tables in Manitoba homes. He organized meetings all over the Province and encouraged farmers and others to become interested in beekeeping. He saw to it that some of our best honey competed with Eastern honey at the

Toronto Royal Fair each autumn. Manitoba honey took so many prizes that it soon was requested when housewives wanted the best table honey. Production increased during the time that he was in office until in 1944 there were 3,915 beekeepers keeping 56,079 colonies of honeybees with an estimated production of 5,271,000 pounds of honey.

Mr. Floyd believed in educating the beekeepers. He assisted with the two weeks' short course in beekeeping given in the Department of Entomology at The University of Manitoba for 21 years where he became acquainted personally with over 500 beekeepers. He wrote for the bee journals and assisted in the preparations of bulletins. He possessed the

happy faculty of making his countless public addresses interesting and inspiring.

Mrs. Floyd died in 1942. There are two sons. Clare is Bee Inspector for Minnesota and located at the University Farm, St. Paul, Minnesota. Austin is completing a course in architecture at Harvard.

Manitoba beekeepers and their wives honored Mr. Floyd at a banquet held at the Marlborough Hotel in Winnipeg on November 29th, 1945, on the occasion of the thirty-ninth annual Manitoba Beekeepers' Convention. He was presented with an illuminated address of appreciation and a pen and pencil set by Manitoba Beekeepers' Association. The Springfield Local Beekeepers' Association presented him with a bond. In his reply Mr. Floyd, who is in excellent health, said he was taking a holiday in New Brunswick, his home province, and then returning to Manitoba where he intends to manage his large apiary. His parting remark was, "You can't keep me away from Manitoba."

## Oregon Association

The Oregon Beekeepers' Association held its annual meeting in Portland on December 7 and 8. There was a much better attendance than usual with several Washington beekeepers present. Re-elected officers: H. J. Moulton, president; Callie M. Burt, vice-president; John D. Burt, secretary-treasurer; Lewis M. White, delegate to National Federation. Speakers at the meeting were Dr. H.

A. Scullen of Oregon State College; L. P. Rockwood, bureau of Entomology and Plant Quarantine, E. R. Jackman, Extension Specialist, Corvallis.

Many reported an increased interest in the use of bees as pollinizers in orchards and for field crops. A successful feature of the meeting was a series of five minute talks by members on local beekeeping problems which had been assigned by the executive committee. Each talk was followed by a discussion. A ban-

quet on Friday evening was attended by twenty-eight.

The executive committee announced plans to increase revenues by asking each member to contribute two cents for each colony. Every member made the contribution giving the association a working fund.

Reports of poison damage the past year were numerous. The association plans to work with the fruit and seed growers to correct practices and seek legislation if necessary.

John D. Burt, Sec.

# A Simple Field Test For American Foulbrood

By E. C. Holst

United States Department of Agriculture, Agricultural Research Administration, Bureau of Entomology and Plant Quarantine.

IN the course of a study on the physiology of *Bacillus larvae*, the cause of American foulbrood of honeybees, several unique enzyme properties of this organism were revealed. Certain of these enzymes suggested that they might be made the basis of a field test for American foulbrood, a test which has long been needed. In the consideration of such a test the criterion of reliability was of paramount importance, with other features, such as time required to run, cost and availability of equipment, simplicity of performance, and ease of interpreting the results, as important secondary considerations.

The enzyme causing the liquefaction of milk casein or curd from either reconstituted or skim milk was found to be best suited as the basis for a test for American foulbrood. It is produced by *Bacillus larvae* when the spores are formed, and is thus abundant in "ropy" larvae, persisting over in the scales for years if kept under ordinary conditions.

The test, as first set up, consisted in dropping the suspected material into a vial containing about 6 drops of milk. The vial was kept at 165°F. in a waterbath during the test. With American foulbrood material the milk curdled within 1 minute. Almost immediately after curdling the liquefying enzyme began to hydrolyze the curd, and this reaction was usually complete in 15 minutes. Such a test was specific for American foulbrood.

During demonstration of the test in the field it was found that addition of water to the milk made the test easier to follow. Subsequent experiments showed that, by adjusting the proportions of reconstituted or skim milk and water, the test could be run at ordinary temperatures.

The following test, under the condition described below, has never failed to detect American foulbrood disease, nor have any "false positives" been obtained with any non-American-foulbrood diseased larvae, pollen,

bees, or other material found in the hive. The initial cost for the equipment required is only a few cents, while the materials used for over 100 diagnoses will cost less than 1 cent. The diagnosis can be made immediately in the apiary, or the suspected material may be run later in the home, office, or laboratory.

This test is intended for use of inspectors or operators having frequent need for an American foulbrood test. An alternate method is included for use by the beekeeper who might want to perform the test only occasionally. Materials needed are skim-milk powder, distilled or tap water, a 1-gram homeopathic vial, and a medicine dropper.

Reconstituted milk is prepared from the milk powder by adding 4 level tablespoons to a quart of water. It is recommended that the milk be freshly made up the day the test is run, to avoid souring. Various types of water have been used with no unfavorable results. However, if there is any doubt as to the water, the test can be run with a distilled-water check and the results compared. Best results are obtained if the water is warm but not uncomfortably hot. The test will work, though, at a temperature around 50° F. (10° C.). Under such conditions somewhat slower clearing can be expected. If the water is cold, it should be warmed. This can easily be done by holding the vial in the hand, if only a few samples are to be run.

To run the test, place the sample in the vial and add 20 drops of warm water (about  $\frac{1}{4}$  of a vial) and shake gently. Then add 10 drops of the powdered-milk solution, and again shake gently. If less than entire scale is available, add 20 drops of water as before, but reduce the number of drops of milk proportionately. There may or may not be a fine curd after 5 minutes, but this is not a significant part of the test. The test is positive if the milky suspension clears, which

usually occurs within 15 minutes, leaving a transparent, pale-yellow liquid. Some times the clearing is so rapid that a test is definitely positive after 5 minutes. The difference between a liquefied positive test and a negative or check test is very striking if the vials are held to the light. Until one is familiar with the test as obtained with American foulbrood material, it is advisable to have a check vial, with only water and milk suspension for comparison. With non-American foulbrood scales the liquid may sometimes become somewhat discolored, but the suspension remains cloudy during the 15 minutes of the test, and the test is considered as negative.

In case only one or a few tests are to be run, it is not essential that reconstituted milk be prepared. Add 20 drops of warm water as before and shake; then add 5 drops of whole milk (skim preferred), instead of the reconstituted, shake, and read as before. If less than an entire scale is available, reduce the amount of milk proportionately. For example, if half a scale is tested, add 2 to 3 drops of milk.

The test possesses a certain amount of flexibility; that is, it need not be performed in the field, exactly as described above. If for some reason the inspector cannot or does not choose to run the test immediately, the samples can be placed in the vials and tested later at the laboratory or at home. In fact, successful tests have been run with match-stick samples of ropy material, as are frequently submitted for diagnosis. In these cases only 5 drops of the reconstituted milk were used, since the ropy material is only partly removed by this technique.

As a matter of good practice, care should be exercised in disposing of the material in the vial after the test is run. The vials should be washed

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## Those Old Bee Books

By Ben M. Knutson

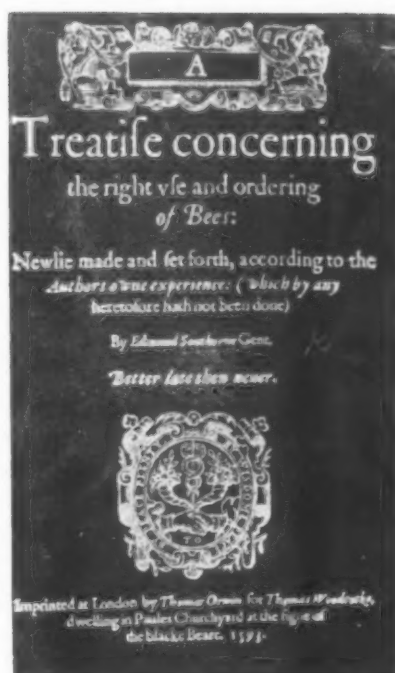
PARTLY from curiosity and partly just for the fun of having them, I purchased a few of the old bee books. My first readings in these books were perhaps a trifle condescending. It wasn't long until condescension changed to respect, then to awe. I soon realized that instead of curios I had sources of information.

Huber's "Natural History of the Honey Bee" has I believe more intimate information on bee behavior than any other book obtainable. Reading this work one can almost imagine himself taking part in the performance of the hundreds of different experiments which the great master instigated. It is now one hundred and sixty years since the mass of his work was done, yet today, reading his reports, as he wrote them, we can follow every step, every detail, with interest, vigor and understanding. His writings are still in beautiful language even though old and translated. Huber was at least one hundred years ahead of his time. Many of his discoveries were doubted and even ridiculed long after, only to be verified later. His work is the equal of any past or present.

An early edition of "Langstroth on Honey Bee" is also a refreshing treatise written with the clarity and enthusiasm of discovery. Many of us today could study with profit his "sixty-one requisites of a complete hive" and his own story of how he was led to develop the "Movable Frame Hive."

An early edition of Quinby's "Mysteries of Beekeeping Explained" brings out the point that before Langstroth's movable frame hive the beekeepers were beset with "some less than a thousand forms." There was no standard hive. Each year some new invention would be claimed as essential to the success of beekeeping. Disappointment always followed. There was the chamber hive, Mrs. Griffith's hive, Week's improvement, Inclined bottom board, Hall's patent, Jones' patent, etc. Many of these hives had doors, glass windows and other features which would seem odd to us now. These numerous and unsuccessful inventions were, of course, necessary forerunners to the simple successful hive which Langstroth did develop.

The writers of that period seemed possessed of a burning desire to know their bees; they were beekeepers rather than honey producers. Perhaps today we have lost some if not much of the yearning for discovery, the freshness and vigor which they



fortunately had. They undoubtedly reflected the spirit of their time, a spirit of inquiry.

I have mentioned only three of the many old bee books which are obtainable at very nominal cost, and which are all almost equally interesting and informative.

Alamosa, Colorado.

## Natural Nectar Resources

By Robert M. Mead

RECENTLY driving through some of Vermont's mountain country we remarked that, for all the honey plants we could see, we doubted if a four frame colony could make a living in mid-summer. That was true of conditions beside the road, but back on the mountains themselves we found a different story. Here lumber operations had left acre after acre of tangled slash and here on the slash was acre after acre of one of nature's finest honey plants, the wild raspberry.

It gave us a funny feeling, to say the least. We pretended to be producers of honey. We fool around with a few hundreds of different honey plants trying to help out our bees, yet, here for the taking, were more honey plants than we could ever raise and more tons of honey going to waste than we could imagine. You may be sure that some of our bees will go back into that section

for the raspberry flow in coming seasons.

Now, what about your locality? Are you really getting the honey there is in it? Could you double your crop by moving your bees a few miles? Do you really know what your crop comes from and where the plants are that produce it?

Here are some hints. In the first place you have to keep your eyes and ears open; secondly, and more important, you have to keep your mind open. Things change and the man who survives in any business has to make changes in location and method at times.

If you live in a lumbering section the big operations of the war years have made thousands of acres of cut over land. Watch for wild raspberry, fireweed and other nectar plants that naturally follow cutting operations. Remember too that in time the forest will grow back again. The wealth of honey plants that often grow on slash land offer a crop that has to be gathered while it is there.

If you live in a section of great dairy farms watch for changes in farm practices. Right now every farm paper and every farm agent is urging farmers to grow more legumes, both for pasture and hay. That means, in sections at least, hundreds of more acres of honey plants. And not only the old legumes, but new ones, many better nectar producers than the old, are on their way.

If you live in a section that went crazy over cash crops during war time high prices you may be sure of some changes now that the war is over. Sweet clover can stage a comeback in some areas. There will be new crops and changed farm practices, some of which will be of direct benefit to the beekeeper who keeps his eyes open and takes advantage of them.

Regardless of where you live if you are a live beekeeper you will want to keep alert to changing conditions, to new crops and to all agricultural practices that may have an effect on beekeeping. You may want, under certain conditions, to grow your own honey crop using some of the fine plants now available.

But, never overlook natural nectar resources. Like the hundreds of acres of wild raspberry on the Vermont mountain side, nature at times lavishes on us a profusion of plant life on a vast scale that mere man cannot duplicate even in the height of his ambition.

Vermont.

# Steps in Moving Bees

**1** The method of moving bees varies with circumstances. It is often possible, because of cool weather, to move bees without any special preparation. Usually, however, some provision is made for screening and ventilation. The first step is to staple the hive body to the bottom board, or attach it in some other way.

**2** A ventilation screen at top allows bees to cluster and reduces smother and other damage. A deep screen is preferred.

**3** The screen is held on with nails or staples and if the hive has free-hanging frames they may be held by strips across the ends as the picture shows.

**4** In warm weather an entrance screen is advisable. Three sides are of wood, the bottom of tin and the tacked-on edges are of tin. Details are evident. So screened, at entrance and top, the bees can stand a lot of heat.

**5** Here is a yard ready to go. Top screens, entrance screens, combs fastened. The entrance screens are placed on at night or early morning when the bees are all in. Loading can be done with leisure in daylight.

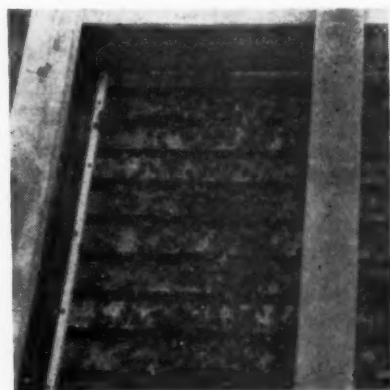
**6** This load is ready to go. The tiers of hives are held apart by strips and with such care in screening and loading, bees can be taken long distances with little or no damage. There is no short cut to successful moving if it is to be accomplished with little danger and little loss of bees and brood.



1



2



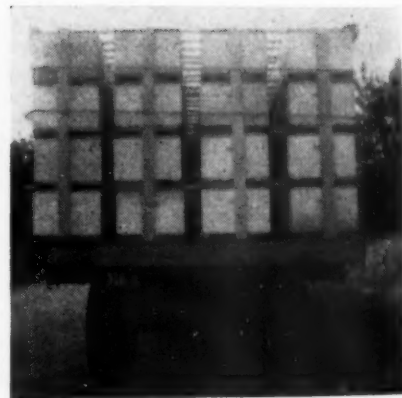
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4



5



6

# Wood Mint

A New Honey Plant Too Long Overlooked

By Frank C. Pellett

**ALTHOUGH** Charles Robertson in his book, "Flowers and Insects" records seventy-six species of insects which he observed visiting the flowers of wood mint, the plant has been entirely overlooked by the beekeepers. The reason is probably because the plant is not abundant but is found in small clumps here and there in open woodlands.

A long search among the books for comments on wood mint, (*Blephilia ciliata*) reveals that the plant has apparently attracted little attention. One finds it in botanical works where it is given a few lines to record the fact that it may be found from Vermont to Minnesota and south to Georgia and Missouri. Thus far we have been unable to find a single reference to it as a garden flower and nowhere in the bee magazines have we found it mentioned as a source of nectar. Pammel in his "Honey Plants of Iowa" is the only author who has even included it in a list of plants visited by the bees.

The writer first became conscious of this plant in late June of 1940 when in company of Maurice Dadant we were walking through the woods along Crooked Creek about twenty miles from Hamilton. A clump of wood mint was in bloom at the edge of cut over woodland and we were attracted to its peculiar pink blossom. They were in dense cluster one above the other on the stem like beads on a string. In this respect it is similar to horsemint as will be seen by the picture.

The clump was dug up and taken to the test garden at Atlantic, Iowa where it was planted July 3rd. The ripe seeds scattered about and the following year there were several more plants. The wood mint bloomed freely in its new location and when free from the competition of other plants was even more attractive than it had seemed in the woods. So many bees visited the flowers that it seemed desirable to increase the number of plants to the point which would permit a more careful study of its possible value. We now have two large beds and each year we are more impressed with its possibilities as a

garden ornamental as well as a source of honey.

When Prof. Robertson was making his list of insect visitors at Carlinville, Illinois, he recorded the fact that it was in bloom from May 15 to July 4th. At Atlantic the flowering period is very similar with the plant in full bloom throughout approximately the entire month of June. Since the flowers come at the time when white Dutch clover is at its best it is of less importance than would be the case at an earlier or later season.

While our plots are in full sun, indications are that the plant might

do better in partial shade as it grows in the wild state. However, it is a very attractive garden flower and should be brought to the attention of those who wish to include wild plants among their ornamentals.

As a bee plant there is every indication that could it be grown in large acreage it would offer good pasture. With this in mind we have made plans to have distillations made to determine whether it may be the source of essential oils or other product which would make its cultivation worth while. Such use, however,

(Please turn to page 34)



Above, plot of wood mint in Honey Plant Garden.  
Wood mint is similar to horse mint in the arrangement of its flowers (see below).





Scenes in the Great Smokies, where nature gets along in harmony; even the honeybee performs her great services in obscure silence—(Pictures from Nashville Chamber of Commerce)



## Honeybees in the Making

By J. J. Wilder

IN the March 1943 issue it was related that honey was among the first discoveries and first enjoyments by white men in the Smoky Mountains, but it is not enough to say that honey was here first found. Who knows but what the honeybee was actually created here under these favorable conditions? To explore the Great Smoky mountains thoroughly and wind up at the many high mountain peaks brings the conviction that here creation reached a climax, and after the early days here may have been the place where the Creator kissed the world goodbye.

Mammoth trees that must have come up in the year one are in evidence everywhere. The abundance of flowering plants, more than 1,200 varieties, add much glory to these mountains. It is just possible that bees had their beginning in such an environment. The great amount of vegetation of every kind covering the entire mountains would justify such a theory since so many flowering plants started their careers in these lofty spots and to perpetuate the

plants, bees were a necessity.

Mother Nature demands this relation between the plant and the bee because of the great need of pollination. These mountains became a seeding place for all the country below, an easy place for seed distribution; even when the ocean played about the bases, seed had a great chance for distribution everywhere.

Whether or not the first bees in this great country had their origin in this favorable spot or not, they must have soon reached it because it is so suitable for their existence.

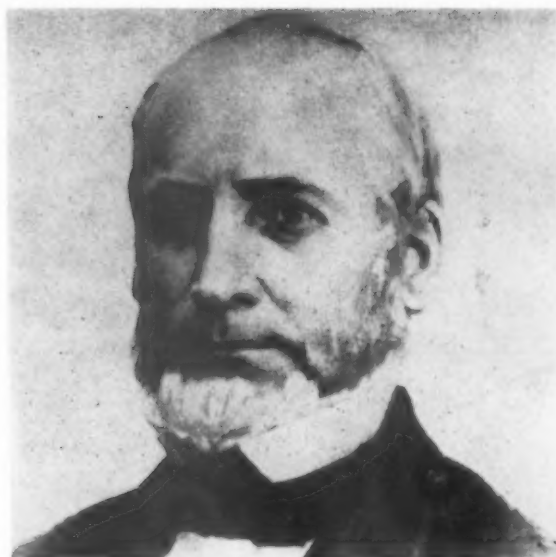
To stroll through this wonderland with its massive bloom, and listen to the bees, presents sights and sounds we do not get anywhere else in all the South. One receives inspiration that is overwhelming to every lover of nature. It is no wonder people go there each year for a vacation ramble.

Where there was much honey for so long a time, there had to be an abundance of bees for many years.

Georgia.

# Moses Quinby-- 1810-1875

By Kent Pellett



IT did not just happen that this New York state Quaker farmer was the first of the country's big beekeepers.

The typical Quaker of pioneer lore was slow moving and deliberate. He was a friend of temperance, an unflinching opponent of slavery. And above all he was a substantial citizen, a good business man.

That was the kind of man Moses Quinby was. He could lecture a boy witheringly for robbing his hives—then give him a huge slice of honey.

Born at North Castle, N. Y., he was reared on hard work, Quaker honesty and a minimum of book education. He went to work in a saw-mill and at eighteen invested his first earnings in a few boxes of bees, which fascinated him.

He spent so much time with his bees that an oldtime bee man told him, "your bees will never do anything if you putter with them so much."

He continued to putter with them for almost fifty years.

By the time he was middle aged he was able to devote all his time to beekeeping, shipping large amounts of honey to the New York market.

The Civil War, like all wars, was characterized by a severe sugar shortage. In this atmosphere Quinby began to talk of honey production in terms of tons. He kept as many as 1,200 colonies of bees. The last year of the war he actually produced a sensational 11 tons of honey. The newspapers published the story widely. Quinby soon was deluged with letters from people wishing to know the secret of his success. Others were following him into beekeeping. New York state became the first center of commercial honey production.

Among his more prominent followers were B. F. Holterman, B. U. Alexander, his son-in-law, L. C. Root, and J. E. Hetherington, the latter an army captain who came home from the Civil War to become the world's largest beekeeper.

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By today's standards Quinby's total production may have been small. If we consider his equipment we are surprised that it was so large. He began with no comb foundation, no bee smoker, no honey extractor. The frames of honey were cut out of the side of the hive, then the honey was strained from the combs.

Prior to Quinby's time beekeeping was merely a pleasant sideline. Honey was one of dozen of items gathered seasonally on every farm. Bees were kept in crude boxes. Surplus colonies were brimstoned every fall.

Quinby early quit the brimstoning, having learned that he could induce the bees to store their honey in boxes above the hives. He made the boxes salable by putting glass sides in them. He also urged his neighbors to quit "killing the goose that laid the golden egg."

All the tools of modern beekeeping had to be built. Quinby built his share. He made his first honey extractor from the parts of an old fanning mill, was enthusiastic beyond words when he watched the device throw the honey from the combs. A. I. Root is said to have used one of his extractors as a model in developing the first extractor to be put on the market.

He constructed the first practical bee smoker by placing a bellows on a tube smoker. Prior to that his own lungs had furnished the air blast for

the smoker. T. F. Bingham improved Quinby's smoker, patented it and put it on the market.

Though no present day equipment bears Quinby's name, he is probably best remembered for his deep frame which was later adopted by Charles Dadant and incorporated in the Dadant hive.

Thus it was that Quinby left his mark on the Bingham smoker, the Root extractor and the Dadant hive.

He did not fully accept the hanging frame principle of the Langstroth hive, preferring rather a standing frame which was in wide use for many years among his followers in New York.

A quarter-century after Quinby began beekeeping he published his book, "Mysteries of Beekeeping Explained." It was in print for almost 60 years and had a lasting influence on American beekeeping.

He was a leader in the early beekeepers' organizations, serving as president of both the Northeastern Beekeepers Association and the North American Beekeepers Society.

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We are told that he gave freely of his time to the worthy enterprises in his home community. He wrote for the magazines and for the then New York papers, *American Agriculturist* and *Country Gentleman*.

In his last days he busied himself with his orchard, his bees and his trout pond, and yet had time for his friends.

**BUY BONDS**



# Function of the Honey House

By Roy A. Grout

**E**XTRACTED honey is harvested in the extracting plant, usually a part of what is commonly called the honey house. The modern honey house and its equipment is the center of beekeeping operations. As E. L. Sechrist once said, "As the queen is the heart of the colony, the honey house is the heart of the apiary. Into it, through it and out of it flow all the currents of beekeeping activity throughout the season."

The removal of the honey from the combs is accomplished in the honey extractor, the invention of which ranks in importance with Langstroth's discovery of the bee space and Mehring's invention of comb foundation.

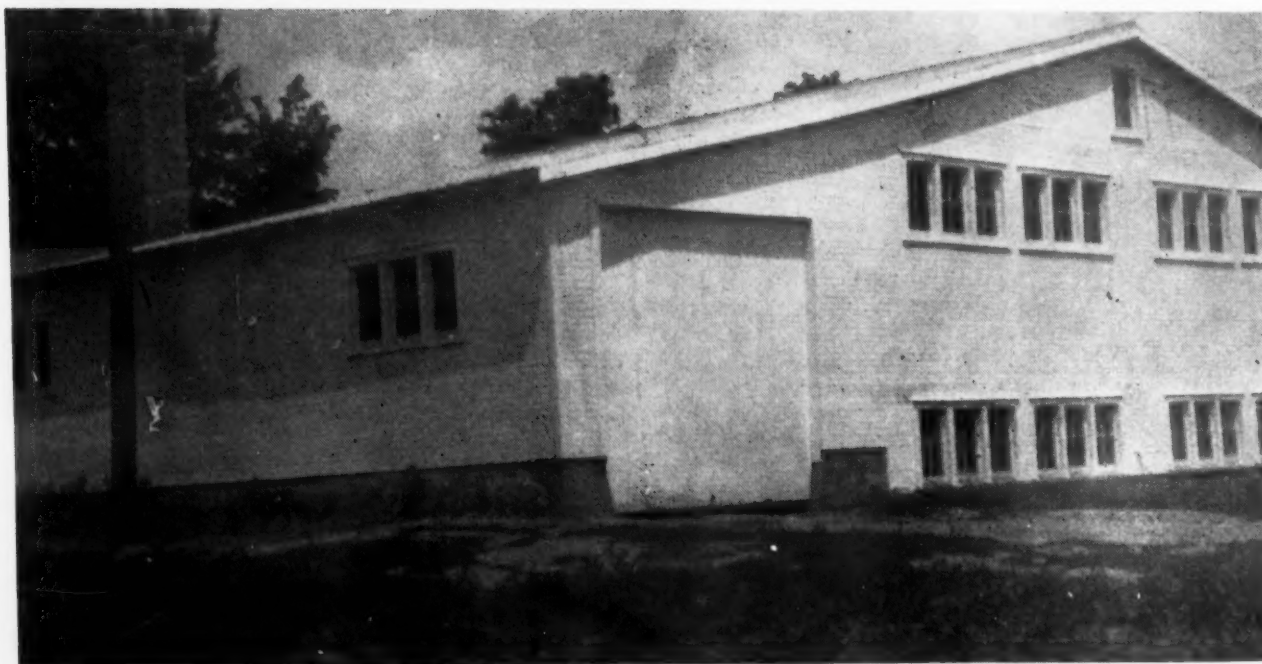
The discovery of the principle of the extractor is credited to Major Hruschka, an Austrian, in 1865, who noticed that honey was thrown from a piece of comb by centrifugal force when his son placed comb honey in a basket and playfully swung the basket around his head. Langstroth early recognized the importance of the discovery and in 1868 had a machine made for extracting honey from the combs.

The invention of the honey extractor and its subsequent development greatly influenced the progress of beekeeping methods and effected the construction of the honey house.

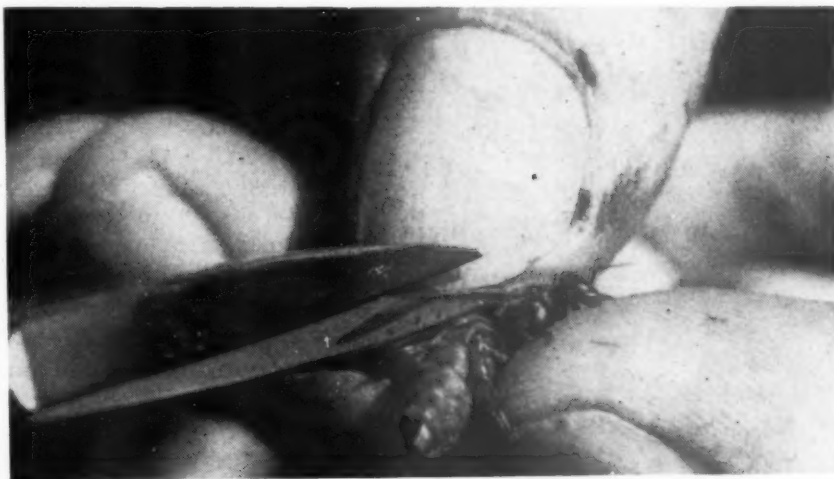
Before the advent of autos and  
(Please turn to page 28)



Major Hruschka (above) began the machine age in beekeeping, with the discovery of the extractor. Now hard roads and trucks demand the central honeyhouse. Howard Potter's house, at Ithaca, Michigan, embodies all that the central plant requires.



# HOW TO DO IT



## How to Clip a Queen

Pick the queen up by the wings, and hold her between the balls of the index finger and thumb of the left hand, so that her legs extend on either side. The queen may also be marked with any chosen color of finger nail paint, placing the color in the center of the top of the thorax with a camel's hair brush. The wings may be clipped with small pointed scissors, like manicure or embroidery scissors. Some clip on one side for even years, on the other side for odd years, and the addition of the color makes a perfect identification.

*(Photo from John H. Hogg, Georgia).*

### A GOOD WATER TROUGH FOR BEES

I find by splitting an old automobile tire in two and placing one of the two halves under a spigot it makes a good place for bees to get water. The sides slope just right for the bees to come down to. In dry weather I have seen it filled with bees.

Jack Farmer, Tennessee.

over the colony that has the laying worker, with a screen wire on the lower side between the two families. Give an entrance to the upper chamber by boring a half-inch hole. Leave for two weeks, and then remove the screen. Do not disturb for another week. A difference in the waiting period for other localities may be necessary.

L. W. Bolton, South Carolina.

### REQUEENING LAYING WORKER COLONIES

I put a queen with half to one pound of bees in a shallow super almost filled with honey with very little laying room. Put the super

### EMERGENCY HIVE TOOL

Get a steel putty knife from the hardware store, heat the end red hot over a gas stove and bend the end in, about one-fourth inch, with a pair of pliers.

Frank Long, Texas.

### FOR MOIST PLUGS

If your truck used in the yards, becomes damp it may refuse to start. The best trick I have found to remedy this is to wipe off the spark plugs and wires with a cloth moistened with kerosene. It seldom fails to start a damped-out car.

Harry T. Starnes, Indiana.

### KEEPING WEEVILS OUT OF SEED

To keep weevils out of seed, mix sulphur with the seed. It does not hurt the seed and the weevils will stay out.

Frank A. Korn, California.

### SIMPLE BEEKEEPING

Use good foundation for your combs. Put combs above on the best colonies in heavy flow in a two hive body system. Use good queens, requeen at once when needed, leave lots of pollen and honey at all times, keep colonies largely in the shade, pack with one thickness of slaters felt and a little straw, with a top entrance.

J. E. McKee, New York.

### REMOVING BEES FROM THE WALL OF A HOUSE

Usually when removing weather board and combs the bees scatter making it next to impossible to get them into a hive. When all the combs that you desire have been removed from the old nest, hang six or more combs of brood on wall or in space occupied by the original brood nest. Replace the weather board temporarily so it can be removed with little disturbance. In two or three days remove the brood combs gently, placing them in a hive. This usually gets the majority of the bees although sometimes a second try is necessary.

H. S. Leitner, South Carolina.

### PRUNING SHEARS

Use a good small pair of hand pruning shears to cut branches up to one inch thick on which a swarm has collected. Shears make an easy cut and do not shake the bees and scatter them as a knife or saw would do.

William W. Wicht, Mississippi.

We are paying John C. Hogg the five dollars this month for the illustrated "HOW-TO-DO-IT" as announced in the December number. This feature is new to "How-To-Do-It." —A good clean illustration of some item. The picture must be sharp, it must illustrate the item; the story itself should be short and to the point. We will pay five dollars for each one selected for publication. See what you can do. We will continue to advance subscription three months for each item used without illustration, as heretofore.

## VOLUME EIGHTY-SIX

**F**OR eighty-five years the American Bee Journal has carried news of the honey producing industry to its readers. When it first appeared, beekeeping was very crude and few of the implements now in common use had been invented. There were no extractors, no smokers, no comb foundation nor had commercial queen rearing been suggested.

In its pages have been recorded the invention of the extractor, the smoker, comb foundation and a hundred useful items of equipment or methods of operation. Many famous beekeepers first became known through the pages of this magazine. No man can measure the influence it has exerted in the development of an industry.

In its first issue, Samuel Wagner, the first editor, called it a vehicle by which information can be readily, rapidly and widely diffused so that early introduction of useful improvements may be secured.

The publishers are proud of the record of eighty-five years of beekeeping history recorded in the pages of American Bee Journal. We feel, however, that we are now entering the period of greatest usefulness. Apparently the beekeeper is entering a new era. For the first time the public seems fully conscious of the importance that the honeybee holds in the field of agriculture. Horticulturists, agronomists and specialists in soil conservation place a higher value on the services of the honeybee pollination than ever before and are offering every encouragement to increase the number of apiaries.

The medical fraternity is finding new interest in honey, and production is falling far behind the demand. No man can foresee what new development or startling discovery may be recorded in volume eighty-six.

## SAVE YOUR WOODENWARE

**W**E would warn our readers against the destruction of any frames that can be used again. It is always desirable to remove poor combs and replace them with full sheets of foundation. Because frames have been cheap it has become the common practice to destroy the frames and use new ones. Now the lumber supply is so acute that supply manufacturers are unable to meet the demand.

## HAPPY NEW YEAR

*For the first time in several years the familiar new year and our boys and girls are coming home to turn their attention to the newspapers filled with battles and casualty lists. Instead of the activities of everyday life.*

*The scars of war still remain. We cannot soon forget that we are hungry and cold and in need of our sympathy and help, and team work will be necessary to rebuild the world.*

*The task of reconstruction will require all our efforts but with confidence and good will. If only we can submerge our individual interests and improve the lot of all, we can live in a much better world.*

*With the abundance of raw materials at hand and the genius of our people we can provide comforts and conveniences in amazing variety. All this is possible in a man's life more than in any period of the world's history.*

*With confidence and sincerity the American Bee Journal wishes you a "HAPPY NEW YEAR."*

Already orders for thousands of frames for next season's use have been returned unfilled for lack of lumber. The supply of comb foundation is adequate but indications are that many months will pass before hives and frames can be made in sufficient quantity to meet the urgent demand. Under present conditions the beekeeper is wise to save every piece of equipment which will serve for another season.

## HONEY PLANT RESEARCH

**R**EPORTS from far and near indicate that beekeepers are at last taking the problems of bee pasture seriously. So little has been done in this field that there is unlimited opportunity for investigation. A start toward establishing honey plant gardens has been made in a few cases but little research is under way. Canada is planning two such test gardens. One to be located at Ottawa in Ontario and the other at the Dominion Experimental farms at Brandon, Manitoba.

In Iowa some very interesting investigations are under way at the Agricultural Experiment Station with funds provided by the beekeepers. The Sioux Honey Association is responsible for the cost of extensive study of the anise-hyssop plant to determine its possible use as the source of essential oil. The yield of oil on different soils, the cost of growing and distillation, the probable

## NEW YEAR

*New year salutation seems appropriate. The war is over  
their attention once again to familiar things. No more are  
Instead we read of the doings of our neighbors and the  
on forget the sacrifices and losses that it has caused. Millions  
and hap. It required team work to defeat the axis nations  
world insure a lasting peace.  
efforts but at last we are ready for it and begin rebuilding  
merge our differences and cooperate in a sincere purpose to  
world.  
and be greatly expanded facilities for production we can  
variety. All this is possible with more leisure for the common  
Bee Journal extends to every reader the age-old greeting,*

demand and the proper methods of cultivation of the plant are all to be studied. This plant has come to attention because of its unusual attraction for the bees in the American Bee Journal honey plant garden.

The Iowa Beekeepers Association has provided funds to employ an assistant who will devote his attention to a study of the relation of the honeybee to seed production in clovers, alfalfa, and similar legumes. The factors controlling the secretion of nectar are an important part of this work.

It is to be hoped that beekeepers in other areas will show a similar interest in bee pasture research and offer support to officials who are in position to carry on such investigations. It should be remembered that "The wheel that squeaks is the one that gets the grease." The experimental agencies will devote their attention to the problems of the groups most vocal in calling attention to the things they want done. If such demands are accompanied with offers to pay a part of the cost more sympathetic attention can be expected.

## SAFFLOWER IN NEBRASKA

**B**ULLETIN 376 of the Nebraska Experiment Station at Lincoln, is devoted to the subject of "Experiments with Safflower in Western Nebraska." Safflower is a new crop grown as a source of oil which is extracted from the seeds.

JANUARY, 1946

The eagerness with which the bees visit the flowers indicates that it may prove to be a good source of honey should it be grown commercially.

It has been found adapted to areas with an elevation of 3,000 feet or more with a dry climate. Cloudy or wet weather during the flowering are unfavorable to seed set and limit the regions in which it can profitably be grown. The oil content of seed grown in eastern Nebraska is eight to ten per cent lower than that grown in the western part of the state.

Extensive investigations are under way to determine whether such varieties as are now available can be established as a profitable crop in Nebraska. We have been unable to learn of any apiaries near these experimental fields to determine the possible yield of honey from this source.

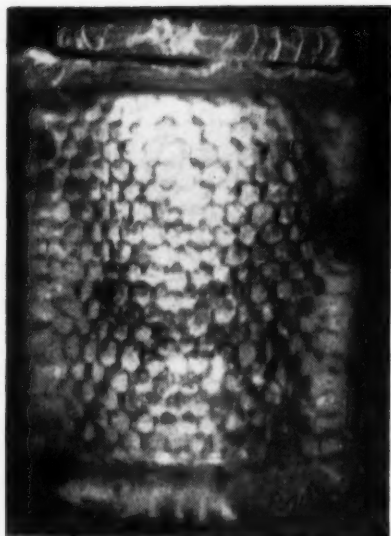
## SWEET CLOVER PROSPECT

**S**WEET clover is the source of more surplus honey than probably goes to the market from any other source. Since it is the main dependence of so many beekeepers it is no wonder that there has been great anxiety because of its replacement by other crops to meet war demands.

It is reassuring to be told by leading agronomists that sweet clover will retain an important place permanently in American agriculture and that the acreage will be increased again in years to come. Indications that it will be turned under before blooming in increasing amounts is disturbing, for the bees get no honey from plants which are not allowed to bloom.

Entomologists report that injury from the sweet clover weevil is less apparent and that probably the insect will not be a serious threat to the future planting of the crop. Like every new insect pest the injury is greatest shortly after its first appearance and before its natural enemies become equally well established.

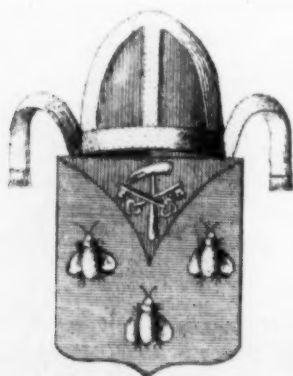
Much research is under way to improve the varieties of sweet clover by selection to better serve the farmers' needs. Later blooming varieties, finer stemmed varieties and varieties with less coumarin content are within sight and may be released before very long.



The bees did this. By providing foundation inside the jars, the bees did the rest. A display of this sort attracts much attention.



Coming again, the roadside stand, which has proved such a successful means of disposing of quality honey packages. Accessibility and heavy travel are essential.



Another coat of arms, with the bee as a part of the emblem. Through all history, the bee and honey and beeswax have been important.

## HOMESTEADING IN ECUADOR

We have received from the Pan American Society of Tropical Research, Casilla 315, Quito, Ecuador, South America, a statement from the Director General of Foreign Immigration, concerning homesteading in that country. Ecuador, truly democratic and friendly, opens the doors of its land to honest, working immigrants; especially skilled agricultural and industrial workers.

There are 100,000 square miles affected by this homestead act. The upper Amazonas area, and parts of the Ecuadorean Occident, much of it potentially the richest land on earth but awaiting development. Virtually every known tropical plant and product can be produced there. Immigrant settlers can homestead about 120 acres per each adult. The Pan American Society has prepared a map showing the products now growing on this free land and listing other tropical crops that can be grown on it. It also lists the requirements to come into Ecuador and regulations governing homesteading. Copies may be obtained by writing to: The Secretary, Sociedad Panamericana, Casilla 315, Quito, Ecuador, South America.

## ARKANSAS RECORD

Arkansas' all-time record honey crop was produced in 1945. On the September 15 compilation before all honey produced was accounted for the total number of pounds exceeded the previous record crop of 1944 by 284,000 pounds. The 1945 honey crop amounted to 1,775,000 pounds.

The most remarkable phase of the record crop was that the first half of 1945 was the worst season for bees in the history of Arkansas beekeeping. Incessant rainfall kept bees in their hives most of the time until June, and for the first time in the writer's experience with bees, there was no honey in even the brood chambers on June 1. However, heavy vegetation followed the constant rains, and after July 1, Arkansas' finest honey flow began and continued until flowers were checked by frosts.

Even though the state produced its greatest honey yield, the demand is still exceeding the supply.

Ralph Underhill, Arkansas.

## FARM POPULATION

According to estimates of the Bureau of Economics there are 25,190,000 persons living on farms of the United States, the smallest number in 35 years. However, farm population decreased by only 351,000, or 1.3 per cent during the current year, the smallest annual net decrease since the United States entered the war. Migration of farm people occasioned by wartime employment was the chief factor in the decrease. Enlistments and induction of young people was also a large factor.

However, in spite of this, agricultural production has reached new highs each year during the war. The prospect for a rapid pick-up in mechanization may indicate that the downward trend in the number of agricultural workers which are needed on the farms will continue and vocational opportunities in agriculture will be smaller.

## COMMON SENSE AND A. F. B.

No panacea in recent years has gripped American beekeepers like the sulfa treatment for American Foulbrood and enthusiasts promote sulfa as a cure-all for Nosema, supersedure, paralysis and what have you.

There is nothing basically wrong in experiments with the sulfa drugs and bee diseases but we do not yet know all about what to expect from the use of this drug. Beekeeping, like many other occupations, is always looking for a spectacular and easy cure for its ills. There is always a tendency to accept the most likely method as something on which to rely one hundred per cent, and thereby cast aside all caution.

For instance, the biggest draw-back to the use of sulfa in the future is that the latest bacteriological experience shows that the bacteria themselves build up a resistance to the drug, so that its effectiveness is gradually reduced. Even though at present the response of colonies with American foulbrood to sulfa is quick and dramatic, future expectancy is still a question and the effect of the drug on the bees and abnormalities of brood and adult is vague and doubtful.

While I was an inspector for one of the largest commercial outfits, the percentage of diseased colonies was less than one fourth of one per cent out of a total of 15,000 colonies. The only sure way we know of at present for repeating such an accomplishment is to get rid of all contaminated material and salvage what equipment, honey and wax we can without providing additional hazards to otherwise clean colonies.

Howard J. Rock.

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## BEARS RAID APIARY

Bears raided the apiary of George G. Gilman at Stow, Maine, on the night of July 8. Three hives of three stories each were destroyed. All that could be salvaged was six frames of bees and brood. The hive bodies and frames were scattered some distance from their stands. Apiary inspector Paul Caine who was in that part of Oxford County witnessed what was left after the bears departed. The game warden said that more than one bear took part in the raid, and that eleven bears had been shot in that vicinity. There is a bounty on bears in Maine. The country surrounding Stow is very rugged.

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## BEE BOOK PUBLISHED IN YUCATAN

Nociones Practicas de Apicultura (Elements of Practical Apiculture) by Alberto Castillo Calero, is the name of a new bee book published in 1944 by the Fomento de Yucatan at Merida, Yucatan.

This book which is 12 mo., paper bound and contains 130 pages is as its name implies, concerned with elementary elements of practical apiculture. Some of the divisions treat of the beehive, the bee colony, apparatus, colony manipulation (robbing-queen introduction) disease and enemies, the harvest, races of bees, honey and pollination. No price is mentioned on the book but we assume that such information may be obtained by addressing the publishers.



Apiary of Juan Poch, Curico, Chile, sent to us at his request by Jay Smith of Fort Myers, Florida.



Baby nucleus for mating queens. Three frames and a feeder. (From the apiary of Juan Poch, Curico, Chile.)



Poch fills his baby nuclei with bees. He is also a honey producer, harvesting thirty-two tons of honey in 1944.



**T**WO (above and below) outstanding association exhibits from Fulton-DeKalb Association, Atlanta, Georgia. The historical exhibit is especially noteworthy.



**H**ISTORICAL exhibits are not unusual, but perhaps not well done. This one may not have been intended as such. It does have that appearance, however, and the Fulton-DeKalb Association is to be congratulated.



**T**HE Apiary, West of Scotland Agricultural College, Auchincruive, by Ayr, sent to us by G. V. Gordon, Cupar, Fife. Very neat indeed. Scotland does things in apicultural education that, in many respects, are ahead of what we do.

## New British Bee Book

"The Art of Beekeeping" by William Hamilton is the name of a new book of 180 pages, cloth bound, published by the Herald Printing Works at Coney Street, York, England. No price is given.

The book treats the natural history of the bees, races, establishment of apiaries, handling bees, seasonal management, swarm prevention, honey production, increase, queen rearing and exhibiting.

While the subject matter is naturally handled on the basis of proper methods of beekeeping in the British Isles, rather than in the United States, still the book is authoritative and will be quite interesting to any reader who wants to contact the publishers for a copy.

We found it quite thorough in its handling of the various subjects. Most British books do give some attention to the preparing and handling for exhibit of various bee products, subject which is sadly neglected in the United States.

## North Carolina Bulletin

"Practical Beekeeping," a 24 page illustrated pamphlet is the title of an Extension circular, No. 274 of the North Carolina State College of Agriculture. It is written by Ross O. Stevens, Professor of Zoology of the college. The circular is designed to help the beginner and small beekeeper to a better understanding of modern beekeeping. It discusses such subjects as the hive occupants, bee hives, beginning practices, package bees, handling bees, fall and spring management, swarm control, producing the crop, uniting and requeening, feeding and transferring, disease, etc. Copies are available from the college at Raleigh, North Carolina.

## Grasshoppers in Utah

Grasshoppers have reduced honey production in part of Utah because of their heavy attacks on sweet clover, alfalfa and other nectar-producing plants. Research at the Utah Experiment Station has failed to indicate that attempts to control grasshoppers with properly prepared and applied grasshopper bait presents any danger to bees.

Glen Perrins, Utah.

## Baldensperger Writes

While at Ithaca, visiting with Dr. Phillips, we were privileged to read a letter from P. J. Baldensperger of Nice, France whom many of our older subscribers, at least, will remember as a prominent writer on bees and of international renown. He attended the Quebec International Conference and his interest all has been toward the advancing of beekeeping and bee culture.

The Baldenspergers were evicted from their home when the Italians first invaded France and were again evicted when the Germans took over control.

They found refuge in the Pyrenees where they remained until the liberation and then returned to their homes. Mr. Baldensperger is now 90 years old. He has difficulty both in seeing and in hearing but his interest in beekeeping is undimmed. Our best wishes go to him and to his daughter and adopted daughter.

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## Bulletins Issued in India

The Bhupen Apiaries in the Himalayas of India have recently issued two four page pictorial folders. The first of these gives colored, printed pictures of the *Apis mellifica* which is our honeybee as raised in this country, *Apis indica*, the smaller bee of India, *Apis dorsata*, the larger Indian bee, as well as *Apis florea*. Description follows the pictures.

The second series is devoted to the enemies of honey bees in India, including wasps, frogs, lizards, spiders, etc. A colored photo of the large, black wasp of the hills is included.

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## Penicillin Improved With Oil and Beeswax

A single injection of penicillin in a beeswax and peanut oil mixture cured 64 of 65 men suffering from certain diseases. A War Department Bulletin says the effectiveness of penicillin is greatly improved by this mixture, which permits its retention in the blood stream much longer. The penicillin dosage is thus reduced and great savings in supplies are affected.

South African Bee Journal,  
August, 1945.

JANUARY, 1946



**R**EMEMBER when Joel McCrea played the beekeeper? He was equipped apparently for bees, but maybe for milk: Hollywood has a regular beekeeper who makes sure that the details about bees are responsible and correct.



**H**ONEY storage room made from an old store meat storage box, on which a lean-to was built to house extractor and tanks.—Wesley Collins, Indiana.



**T**HIS shows what good colonies, with good combs, good queens and satisfactory management will do in a single season.—R. B. Craft, Iowa.

## For the Ladies



WHEN January snows drift lazily past your windows to be whipped into sudden frenzy by sharp stinging winds, there is no place like home, if you're on the inside looking out. A kitchen filled with the pungent odors of fresh homemade bread will double this simple pleasure for cold weather and hot breads go together like ham and eggs.

Bread making need not be an all day chore, or something which takes years of practice to perfect. One of the easiest ways to have hot rolls on short notice is to make up a refrigerator dough, use as much as is needed for the meal, and store the remainder. This type of dough will keep for almost a week and will add interest to many meals.

### Refrigerator Rolls

- 1/2 cup honey
- 1 cake compressed or dry granular yeast
- 1/2 cup mashed potatoes
- 2 cups milk and potato water
- 1 tablespoon salt
- 5 cups flour (about)
- 1/2 cup melted shortening

Combine honey and yeast and let stand to soften yeast. Add mashed potatoes to scalded milk and water. Cool to lukewarm. Combine yeast and liquid mixture. Add salt, half the flour, and beat thoroughly. Add melted shortening and remainder of flour to make a soft dough. Knead. Let rise until double in bulk. Punch down, and put in a cold place for 24 hours or more, or shape at once, and put in a warm place to rise. Bake at 425° F. for 15 to 20 minutes. Note: If dough in refrigerator rises, punch down. This dough will keep 4 to 5 days. Put three small balls of

dough in greased muffin pans for clover leaf rolls.

For variety, roll out a portion of the roll dough in a sheet one half inch thick, brush with butter or margarine. Spread with honey. Roll like a jelly roll, cut into one inch slices. Place cut side down in pan, spread with pieces of butter, honey and scatter with pecans or walnut meats. Cover and let rise until double in bulk. Bake in moderate oven (375° F.) 20 to 25 minutes. Let rolls stand in pan one minute after baking before turning them out.

Winter time means that the furnace has to be percolating 24 hours a day, so why not make the most of it? If you have a hot air type of furnace with a wide ledge inside the coal door, you can put the furnace to work in preparing your meals too. Baked beans and baked potatoes adapt themselves perfectly to this method of cookery, and will conserve your usual source of heat. Just be sure to put the beans in a heavy crockery (heat-proof) container, and rub the well-scrubbed potatoes generously with fat to keep the skins from getting too hard and crusty.

\* \* \* \* \*

There is nothing like a bit of onion to lift a casserole dish or a salad out of the doldrums into something really worth writing home about. Now someone has taken the plight of the onion peeler to heart and invented a gadget designed to take the tears out of onion cookery. It blows the skins off with a jet of steam. Something else which eliminates not only the tears but also the odor from kitchen and hands, are the dehydrated onion powders now on the market. They have the full strength of a fresh onion and are easy to use.

\* \* \* \* \*

Going from onions to candles, dinner by candlelight makes a lovely setting, but it is apt to be hard on your table linens if you are not extra careful about the way you handle the candles. The wax that splatters when you blow them out can ruin a cloth, but if you pour a few drops of water from a teaspoon into the depression around the wick, they will extinguish themselves without any spluttering or spattering.

—American Honey Institute.

## Function of the Honey House

(Continued from page 20)

trucks, honey houses were located at the individual outyards and the extracting equipment was moved there to be used and then carried on to the next outyard. A portable extracting plant was also used in this period, the extracting equipment being mounted in a wagon or van. The workshop and wax melting equipment were usually in the extracting house at the home apiary and hive equipment was stored in the individual houses at the outyards.

As trucks and automobiles became common the need for a central honey house became apparent. Here extracting, wax rendering, storage and workshop, could be managed under one roof with greater efficiency and less expense.

### General Considerations in Planning the Honey House

The honey house should be a structure of ample size, efficient arrangement and enough extracting machinery to meet the beekeeper's requirements at a minimum expense. A simple structure with compact and well-arranged equipment is better than a poorly arranged building and contents, no matter how fine it may otherwise be.

Experience proves that many beekeepers make too great an expenditure in equipping the honey house which may in time contribute to failure or a substantial loss. This has been emphasized in days of low-priced honey and in regions where changes in agriculture have made it necessary to move the entire outfit, leaving expensive honey houses behind.

To offset the possibility of this loss some beekeepers use honey houses with concrete floors, designed as warehouses along railroad sidings, or a bungalow type of building which may be converted into a residence.

An important factor influencing the building of an economical structure is fire loss. The lesson which has been taught by honey house fires is to build economically a building which is as fire proof as possible, such as a corrugated iron building with concrete floors and to have the house where there is fire protection and police protection. If the building is of frame structure it should be far enough away from other buildings to reduce fire hazards. Insurance should be carried on the house and equip-

ment. Locations with fire protection have a lower insurance rate. The type of building and its arrangement also influence the premium rate. A fluctuating type of insurance can be obtained with the premium based on the building and its contents under perpetual inventory. So when the supers are on the bees and the bulk of the equipment is out the premium is reduced and when storage is heavy and the crop is extracted and stored the premium increases.

Labor is an important consideration in the design and arrangement of the equipment of the honey house. The large beekeeper must depend on keeping as many bees as he and his permanently employed and skilled help will permit. During the extracting he usually must depend on inexperienced labor to perform most of the extracting operations. The small beekeeper has just as important a problem. He must, because of other work, do his extracting efficiently and quickly.

A cooperative plan of operating a honey house seems feasible. The initial cost of building and equipment overhead and operation may be shared. Those involved may work together to mutual advantage. Custom extracting will help solve the problem for many neighboring beekeepers. One of the group may own and operate the extracting equipment and do the extracting for a fixed charge.

To summarize; a honey house is not only used for extracting but to store full supers when brought in, to permit uncapping, to permit equipment storage; heating, straining, clarifying honey, and the storage of honey.

Where it becomes cool before extracting is completed or where humidity is high it is advisable to have a heated room in which the honey is stored previous to extracting or to keep the moisture content down.

A work space for repairing equipment, nailing up new equipment, in many cases a garage space for the truck; the house also involves the heating plant and source of steam supply, although often because of fire risk this equipment is in a small separate building. Wax melting and rendering also command space in the honey house, although it may, too, be included in the separate building because of fire risk.

Sechrist gives the following requisites for a good honey house: It should be large enough, yet compact and well planned. It should be bee tight, well ventilated, and capable

## Institute News Notes

*May the new year hold everything good for you and your family.*

\*\*\*\*\*

1945 was a year that demanded extraordinary patience. In spite of paper shortage, labor shortage, and turnover in office help the year went too fast.

\*\*\*\*\*

The Institute gave you the following pieces of literature in 1945:

Revised and enlarged Old Favorite Honey Recipes (120,000 copies).

Honey—a twelve page booklet on the nutritional value of honey.

Honey Specialties for Bakers.

Honey and Cereals.

Honey to Start the Day Right.

National Honey Week Leaflet.

Calendar for 1946 (There are some left at fifty cents a hundred).

Use Honey for Canning and Preserving (Revised).

Chocolate Cake by Mix-Easy Method.

Jellies and Marmalades made with Honey.

\*\*\*\*\*

Do you advertise? If so, it should pass these tests:

Is it true?

Is it important? (It may be true but not important).

Is it of the moment?

\*\*\*\*\*

The growth of the American Honey Institute in its service to the nation and in its status in the nation during the past six years is fabulous. No effort, physical or mental, has been spared to attain this goal and no effort will be spared to hold it.

\*\*\*\*\*

The following letter is one of many that have come to the Institute:

of being thoroughly cleaned. Floors should be strong enough to carry heavy loads and free from vibration. The building should be so planned that when honey is brought in it

November 27, 1945  
San Diego 9, California

American Honey Institute,  
Madison 3,  
Wisconsin.  
Dear Sir:

Do you still publish "Old Favorite Honey Recipes?" I was given a copy some years ago and have enjoyed the recipes so much that I should like to give it to friends as Christmas remembrances.

It gives the price as 10c. Will you send me information as to present price and whether it is still published.

Sugar rationing made it necessary for me to use honey, but after using it in a great many ways, I'm an ardent user on its own merit. I have found the cooky recipes especially fine and others have asked me for them.

Thank you so much for publishing such a helpful folder and I will appreciate any information concerning the recipe book.

Very truly yours,  
Mrs. C. R. W.

\*\*\*\*\*

The Annual Directory will soon be published. Will your name be in it? Remember that the American Honey Institute functions to promote the use of honey, not only for the advancement of the honey industry but for the welfare of mankind.

\*\*\*\*\*

There are a few things to think about:

What kind of a label have you? Does it appeal to the women? Do you know there are fifty million of them in the United States? Do you know that they own 70% of the nation's wealth and 40% of the homes? They have an extraordinary potential power.

What do you desire to have a customer see at first glance at a label? Is it the word "honey," your trade name, the name of your firm, or the flowers or pictures of bee hives? A unique label has gained distinction for many a product.

\*\*\*\*\*

Does your package carry a honey recipe and does it say "additional recipes may be secured by writing to the American Honey Institute, Madison 3, Wisconsin?"

moves in a direct line of travel to the storage tanks and shipping rooms. The building should be well lighted and its construction should be as fire proof as circumstances will permit.

## ANDERSON'S Quality Queens and Package Bees

### Our Prices

	Queens	2-Lb.	3-Lb.	4-Lb.	5-Lb.
1 to 24,	\$1.25	\$4.00	\$5.10	\$6.20	\$7.30
25 to 99,	1.15	3.75	4.80	5.85	6.90
100 up,	1.05	3.50	4.50	5.50	6.50

## B. A. ANDERSON & CO.

OPP, ALABAMA

## BEE SUPPLIES

A. H. RUSCH & SON CO.

REEDSVILLE, WISCONSIN

Manufacturers

Jobbers

## Leather Colored Italians

Sorry, we are sold out until May 10, 1946. Thank you for the business.

## Gold Flat Apiaries

NEVADA CITY, CALIFORNIA

## FOR SALE

BRIGHT YELLOW AND THREE  
BAND QUEENS

GRAYDON BROS.

RT. 2

GREENVILLE, ALA.

## MAGIC ELECTRIC WELDER

110 volt AC-DC; welds, brazes, solders, cuts all metals; easy to use; full directions. Complete with power unit, flame and metallic arc attachments, carbons, fluxes, rods, mask. Used by the navy. Guaranteed for one year. Splendid for farm use. Only \$19.95.

MAGIC WELDER MFG. CO.  
241 CA Canal St. New York City

## Package Bees For 1946

2-lb. package with queen...\$3.50 ea.  
3-lb. package with queen... 4.50 ea.  
4-lb. package with queen... 5.50 ea.

Queenless package, deduct 90c from above price. 20% down, books order, health certificate and safe delivery guaranteed. Address

HESSMER BEE FARMS  
HESSMER, LOUISIANA

## GLEANINGS IN BEE CULTURE

FEATURE ARTICLES—NEWS ITEM  
MONTHLY TALKS TO BEEKEEPERS

Subscription Rate

1 year, \$1.50; 2 years, \$2.50; 3 years \$3.00  
In United States and Canada.

THE A. I. ROOT CO.

MEDINA, OHIO

# Meetings and Events

## Manitoba Short Course, Winnipeg, January 14-25

Announcing short courses in agriculture and economics at the University of Manitoba, Winnipeg, for 1945-46, Professor A. V. Mitchener sends details of the beekeeping course, which is held along with other courses on various agricultural subjects, which date from November 12 over to the middle of May. The beekeeping course is scheduled for January 14 to January 25 with Professor Mitchener and E. C. Martin, W. S. McLeod and the specialists of the various departments as lecturers.

This is the twenty-fourth annual short course. It covers the whole field of practical beekeeping in about 55 fifty minute periods. A complete program of topics and lectures will be available, for those who like copies, a few days before the opening of the course and each student will receive one.

The course will include not only lectures but demonstrations. How to begin beekeeping, the structure and physiology of the honeybee, equipment, seasonal management, honey plants, honey and its uses, beeswax and its uses, diseases. It is a practical course. Tuition fee, \$5.00.

## New Rochelle (N. Y.) January 20

The New Rochelle Beekeepers' Association will hold their first meeting of the new year at the home of Mr. and Mrs. James A. Bailey, 18 Burling Lane, New Rochelle, N. Y., on Sunday, January 20, 1946, at 2:30. Election of officers for the coming year will be the order of the day and all members are urged to be present. Refreshments and a social hour will follow the meeting.

A. W. Barnes, Ass't. Sec'y.

## Empire State Association (N. Y.) Syracuse, January 25-26

The annual meeting of the Empire State Honey Producers' Association will be held at the Onondaga Hotel, Syracuse, New York, Friday and Saturday, January 25 and 26, 1946, starting at 10:00 A. M. A good pro-

gram has been arranged. All beekeepers, their families and friends are invited.

E. T. Cary, Sec'y-Treas.

## York-Cumberland (Maine) January 27

The seventh annual meeting of the York-Cumberland Association was held with Walter Gerald, Portland, Sunday, November 18. The following officers were elected: Chester A. Morrill, Portland, president; Walter Gerald, Portland, vice-president; Dr. Horatio C. Meriam, Bar Mills, secretary-treasurer; Leon R. Nevers of Portland, and Harry B. Rhodes, of North Berwick, executive committee.

It was voted to amend the Constitution and By-Laws by increasing the amount of annual dues to the state association twenty-five cents to take care of the assessment by the National Federation.

A honey exhibit was held with State President, Paul Caine, Winthrop and Professor Charles O. Dirks of Orono acting as judges. First prize went to Carl E. Chappell of Biddeford and second to Mr. Merrill, the third to Mr. Rhodes and a special prize from the A. I. Root Company to Dr. Meriam.

Professor Dirks urged a uniform scale of prices for the use of bees in orchards for pollination. Mr. Caine told of methods of preventing infection being carried from one colony to another in inspection work.

The next meeting will be with Milton S. Libby, 1544 Congress Street, Portland, Sunday, January 27 at 3:00 P. M.

H. C. Meriam, Sec.

## Nebraska Association Agriculture Week, February 4

The Nebraska Honey Producers' Association will hold its annual meeting during the week of Organized Agriculture, February 4, 1946. Election of officers and speakers will make a full day. All interested are invited. The Ladies' Auxiliary will also hold their meeting the same day. If fa-

cilities are available both groups will attend a noon luncheon together.

Mrs. Henry Puppy, Secretary,  
Ralph W. Barnes, President.

### National Federation Annual Meeting Severin Hotel, Indianapolis, Indiana, January 14, 15, 16, 17

Monday, January 14

9:30 A. M.—Executive Committee Resolution Committee.

1:30 P. M.—Research and Extension Apiculturists.

3:30 P. M.—Apiary Inspectors of America.

8:00 P. M.—Board of Directors, American Honey Institute.

Tuesday, January 15

9:00 A. M.—Registration — continuous through meetings.

Business meetings of following committees: Honey and Pollen Plants. Veterans Rehabilitation. Beekeepers Rights. Uniform Caps for 60 lb. cans. Quality Honey. Research.

10:30 A. M. — National Honey Association. Bee Supply Industries Association.

1:30 P. M.—Business session of National Federation. Financial and General Report of the Secretary-Treasurer. Announcement of Convention Committees. Report of Committee on Uniform Caps for 60 lb. cans.

2:00 P. M.—American Honey Institute Hour, Lewis W. Parks, president; Harriett M. Grace, director.

3:00 P. M.—What We May Expect from DDT, Dr. C. W. Kearns, Department of Entomology, University of Illinois.

3:30 P. M.—Recess.

3:45 P. M.—Research Committee Report and Open Forum Discussion: Ralph W. Barnes, Chairman, Oakland, Nebraska; Newman I. Lyle, Sheldon, Iowa; J. W. Newton, Baton Rouge, Louisiana; E. J. Dyce, Ithaca, N. Y.; R. L. Parker, Manhattan, Kansas. Howard Potter, Ithaca, Michigan; C. L. Farrar (Advisory), Madison, Wisconsin.

8:00 P. M.—American Beekeeping Council (Formerly Beekeeping War Council).

8:00 P. M.—National Beekeepers Auxiliary.

Wednesday, January 16

9:00 A. M.—Suggested Future Program for the American Beekeeping Council, Woodrow Miller, President, Colton, California; Roy Grout, Secretary, Hamilton, Illinois; John

### Middle Tennessee Apiaries : Leather Colored Italian Queens

From imported breeding stock. 1-25, \$1.25 each. 26 or more \$1.10 each. One-fourth books orders—balance before shipping. Add 6 cents for all queens by air mail.

ALL QUEENS AFTER JUNE 15TH \$1.00 EACH

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## PACKAGE BUYERS

Again we offer the same high quality Italian queens and packages as in the past and expect to give the same "on time" service, and careful attention to every order.

	1-24	25-99	100-up
2-lb. pkg. with queen	\$4.00	\$3.75	\$3.50
3-lb. pkg. with queen	5.00	4.75	4.50
Extra queens	1.25	1.15	1.05

For queenless packages deduct price of queen. Add \$1.00 per pound for larger packages.

**W. E. PLANT**

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Rt. No. 2

Mississippi

## Italian Bees 1946 and Queens

Quantity	Queens	2-lbs. and Queen	3-lbs. and Queen
1- 24	\$1.10	\$3.90	\$4.90
25- 99	1.05	3.80	4.80
100-499	1.00	3.70	4.70

**WE GUARANTEE LIVE DELIVERY—FREE FROM DISEASE**  
Terms 10% down to book order, balance ten days before shipment  
Book Now and Assure Delivery

**Ells Honey & Bee Co., 872 High St., Houma, La.**

**NOTICE—** 2000 3-lb. packages with queens for  
**APRIL DELIVERY—Write**  
**EPHARDT HONEY FARMS** **GHEENS, LOUISIANA**

**NOTICE** To our customers and friends, I am now booking orders for spring delivery for

### Italian Bees and Queens

Write or wire us your orders before we are booked up.

	1 to 24	24 to 48	100 Lots	ITALIAN QUEENS
2-lb	\$4.00	\$3.75	\$3.50	1 to 50
3-lb.	5.00	4.75	4.50	50 to 100
				\$1.25
				\$1.10

**HUBER FOREHAND, Satsuma, Ala.**

42 YEARS AMONG THE BEES

**YOU MUST BE SATISFIED** regardless of the reason!

Bees from our quality and production-bred Italian Queens will fill those supers. Plenty of spring shipping dates open. Book your orders NOW.

1-24	\$1.10
25-up	1.00

**HEART O' TEXAS APIARIES : Waco, Texas**

Paton, Chm., Washington Committee, New York, N. Y.

9:30 A. M.—Solving the Problems of Beekeepers, James I. Hambleton, Chief, Bee Culture Laboratory, Beltsville, Maryland.

10:10 A. M.—Veterans Rehabilitation Committee Report, Elmer Carroll, Chm., Lansing, Michigan.

10:30 A. M.—Recess.

10:45 A. M.—Beekeepers Rights Committee Report and Open Forum Discussion, Dr. J. E. Eckert, Chm., Davis, California; James E. Starkey, Indianapolis, Indiana; E. G. LeSturgeon, San Antonio, Texas; Dr. R. B. Friend, New Haven, Connecticut; Orville Wixom, Wapato, Washington; J. K. McClaugherty, Monte Vista, Colorado.

1:00 P. M.—Annual Address of the President, John W. Holzberlein, Jr., Grand Valley, Colo.

1:30 P. M.—Report of Convention Committees: Auditing; Credentials; Resolutions; Nominations.

2:30 P. M.—Bees in Legume Seed Production, Dr. I. J. Johnson, Iowa State College, Ames, Iowa.

3:00 P. M.—Conservation and the Honeybee, R. L. von Treba, Soil Conservation Service, Milwaukee, Wis.

3:30 P. M.—Recess.

3:45 P. M.—Honey and Pollen Plants Committee. Report and Open Forum Discussion: W. E. Dunham, Chm., Columbus, Ohio; H. A. Scullen, Corvallis, Oregon; S. W. Edgecombe, Doylestown, Pennsylvania; R. B. Willson, New York, N. Y.; Norma Pfeiffer, Yonkers, N. Y.; Frank C. Pellett, Hamilton, Illinois; M. J. Deyell, Medina, Ohio; Glenn O. Jones, Atlantic, Iowa; James I. Hambleton, (Advisory), Beltsville, Maryland.

6:30 P. M.—Banquet and Fun-Fest.

#### Thursday, January 17

9:00 A. M.—Election of Officers.

9:30 A. M.—The Future of Beekeeping as Seen by a Washington Observer. Harold J. Clay, Production and Marketing Administration, United States Department of Agriculture, Washington, D. C.

10:30 A. M.—Quality Honey Committee Report and Open Forum Discussion: E. F. Phillips, Chm., Ithaca, N. Y.; R. F. Remer, Sioux City, Iowa; Walter Diehnelt, Menominee Falls, Wisconsin; Lewis M. White, Portland, Oregon; Donald H. Lee, Groten, N. Y.; A. V. Dowling, Valdosta, Georgia; John V. Wilbanks, Sarasota, Florida.

2:30 P. M.—Executive Committee Meeting. Such other Committees as care to meet and plan activities for 1946.

**Forty-Third Annual Meeting of the Pennsylvania State Beekeepers' Association, Room 321, Education Building**

**Harrisburg, Pa., Jan. 23-24, 1946**

**Wednesday Morning, 9:30 to 12:00**

Meeting called to order by the

President, Roy H. Herr, Lancaster, Pennsylvania.

Invocation—Rev. Leonard E. Good, Mt. Holly, New Jersey.

Address of Welcome—Hon. Mr. Miles Horst, Secretary of Agriculture, Harrisburg, Pennsylvania.

Inspection Program for Pennsylvania—Harry B. Kirk, Senior Entomologist, Bureau of Plant Industry, Harrisburg.

Sulfa Drugs and American Foulbrood—E. J. Anderson, Prof. of Apiculture, State College, Pennsylvania.

Beekeeping in an Atomic Age—Dr. Fred F. Lininger, Director of Agricultural Experiment Station, State College, Pennsylvania.

The Program of the National Federation of State Beekeepers' Associations, Glenn O. Jones, Secretary-Treasurer, Atlantic, Iowa.

The Need for Greater Organization—A. D. Hiatt, Field Representative for G. B. Lewis Company, Lynchburg, Virginia.

#### Wednesday Afternoon, 1:30 to 3:30

Report of Secretary-Treasurer, H. M. Snavely, Quakertown, Pennsylvania.

President's Address—Roy H. Herr, Lancaster, Pennsylvania.

Election of Officers.

Business Session.

Reports of Committees.

Fifteen Year's Achievement of 4-H Bee Club Members, Russell M. Smith, Forest County Agent, Tionesta, Pa.

Production of Package Bees—P. G. Craddock, Extension Apiarist, State College.

Safety Talk, W. E. Stuckey, Farm Safety Specialist of Ohio, who will speak for Pennsylvania's Rural Safety Committee.

Bees for Orchard Pollination, Garnet G. Gillan, St. Thomas, Pa.

#### Wednesday Evening, 6:30

The Beekeepers' Banquet. Turkey Dinner \$1.50. Colonial Park Evangelical and Reformed Church. Three miles East of Harrisburg on Route U. S. No. 22. (The church is located on the North side of the Highway).

Special Vocal Music, Student's Male Quartet, Messiah Bible College, Grant-ham, Pennsylvania.

Toastmaster, A. D. Hiatt, Lynchburg Virginia.

Pictures from the Research Dept. State College, E. J. Anderson.

Color Pictures of 4-H Bee Club Activities, Russell M. Smith, Tionesta.

#### Thursday Morning, 9:30

Reports of Committees.

Greetings from Visitors and Supply Representatives.

What the Future Holds for Our Industry, A. D. Hiatt, Lynchburg, Virginia.

New and Better Honey Plants, Glenn O. Jones, Atlantic, Iowa.

Some Experiences in Beekeeping in the South, P. G. Craddock, State College.

Some Results of DDT with Honey Bees, E. J. Anderson, State College.

Reports of Resolution Committee. Adjournment.

**New Jersey Beekeepers' Association Annual Convention, Thursday, January 24, 1946**

**Lodge Room, Moose Hall, 401 East State Street, Trenton, N. J.**

Curtis A. Wightman, Pres., Presiding

#### Morning Session

9:30 A. M.—President's Address. Report of Secretary-Treasurer, Elmer G. Carr, Pennington. Reports of Standing Committees.

10:30 A. M.—The Work of the Bee Culture Laboratory at Beltsville, Maryland, James I. Hambleton, Beltsville, Maryland.

11:30 A. M.—Honey Cookery, Miss Dorothy Lauer, Home Service Consultant, Public Service Gas and Electric Co., Trenton.

#### Afternoon Session

1:30 P. M.—Election of Officers for 1946. Report of Auditing Committee. Reports of Resolutions Committee.

2:15 P. M.—Apiary Management, William J. Sonderman, Lincoln Park.

2:45 P. M.—The Effect of DDT and Sulfa Drugs on Honeybees—James I. Hambleton, Beltsville, Maryland.

3:30 P. M.—Packaging and Marketing Honey, Everitt O. Rulison, Washington, N. J.

Beekeepers' Dinner, Thursday Evening, January 24th, Young Men's Christian Association, 2 South Clinton Avenue, Trenton

6:00 P. M.—Curtis A. Wightman, President, Presiding. Dinner—Music—Motion Pictures

#### Wyoming

The Wyoming Beekeepers' Association held their annual meeting in the Gladstone Hotel, Casper, November 19 and 20, with a large attendance. Guest speakers, B. F. Remer, Sioux Honey Association; Glenn Jones, secretary-treasurer National Federation; Mr. Swanson, A. I. Root Company, Council Bluffs, Iowa; and George Harston, State Entomologist, Powell, Wyoming.

The Officers elected were: Herman Rauchfuss, Worland, president; Sterling Johnson, Lovell, vice-president; Herbert B. Addleman, Douglas, Secretary-treasurer; A. D. Hardy, Powell, director. Edward Ruffing, Hyattville, Wyoming was elected as a delegate to the National Federation with Herman Rauchfuss, Worland, alternate.

Herbert B. Addleman,  
Secretary-Treasurer.

**Ohio Association Winter Meeting, Ohio Farm and Home Week, February 5-7, Columbus**

Ohio State Beekeepers' Association is scheduling a winter meeting in



# TIN PAILS

We again have a complete stock of tin and glass containers for quick shipment from Paducah.

## TIN PAILS

Carton 50 five-lb. pails, wt. 26 lbs., price	\$3.15
Carton 50 ten-lb. pails, wt. 40 lbs., price	\$4.85
Carton 16 sixty-lb. cans (2½ in. opening), wt. 54 lbs., price	\$5.40

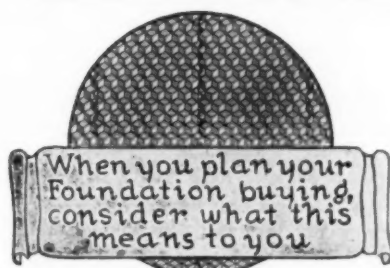
## GLASS

16-oz. Economy Jars, carton of 24, 11 lbs., price	\$0.70
32-oz. Economy Jars, carton of 12, 12 lbs., price	\$0.42
5-lb. Economy Jars, carton of 6, wt. 10 lbs., 12 cartons \$5.00; 24 \$9.90	

5% Discount From These Prices on Orders of Over \$50 at One Time

SAMPLE HONEY LABELS MAILED UPON REQUEST

**WALTER T. KELLEY CO. : Paducah, Kentucky**



Plan For Your Needs with

## Dadant's Famous Foundations

- Crimp-Wired
- Plain Brood
- Surplus
- Cut-Comb

Made Wholly of Pure Beeswax. Products on which you can depend. Combs or slumgum rendered into beeswax.

Beeswax worked into foundation. Extra foundation furnished.

Beeswax bought or exchanged for supplies.

WRITE FOR FOLDER AND PRICES

**DADANT & SONS**  
HAMILTON, ILL.

## Customers and Friends:

We have just gone through the most trying season of our experience;

We are preparing for 1946 with firm faith and conviction that the Future holds Peace and Prosperity for all deserving People;

We are booking orders for Package Bees and Dependable Three-Banded Italian Queens of a strain selected for their high production and fine qualities; all of my own production. Prices as follows:

Quantity	1-23	24-98	99 Up
2-LB. PACKAGE WITH QUEEN	\$3.85	\$3.70	\$3.50
3-LB. PACKAGE WITH QUEEN	4.85	4.70	4.50
QUEENS ONLY	1.25	1.20	1.15

(For Queenless Packages, Deduct Prices of Queen)

All Packages shipped Express Collect.

**Terms:** \$1.00 per package will book your order, and balance to be paid before your shipping date. Please order your packages in multiples of three. Live Delivery and Satisfaction Guaranteed.

**JOHN C. HOGG : Tifton, Ga.**

## Italian Bees and Queens For 1946

TO GET PREFERRED SHIPPING DATES WE WISH TO ADVISE YOU TO PLACE YOUR ORDER NOW as our list is rapidly filling up. Let us know your needs for the coming season and we will give you our quotations and date.

**B. J. BORDELON APIARIES : Moreauville, La.**

To assure yourself of obtaining the best of supplies, read the ads of A-B-J—when writing to them, mention A-B-J

# YORK'S

## Package Bees and Queens For 1946

### QUALITY BRED ITALIANS

No Change in Price For Coming Season

#### PACKAGE BEES WITH YOUNG LAYING QUEENS

Quantity	1 to 2	3 to 27	30 to 96	99 up
2-lb. pkgs. ---	4.25 each	\$4.10 each	\$3.95 each	\$3.75 each
3-lb. pkgs. ---	5.25 each	5.10 each	4.95 each	4.75 each
Extra Queen	1.30 each	1.25 each	1.25 each	1.25 each

Queenless packages, deduct \$1.10 per package

Booking orders now for 1946, same terms and price. We thank our customers for their patronage and will be prepared to serve you better with highest quality the coming season. A large number of buyers have already placed orders for coming season and if you have not done so, we urge you do so without delay for better choice of shipping dates. There are every indication of an extra heavy demand. Order direct from this ad and save time.

## YORK BEE COMPANY

JESUP, GEORGIA, U. S. A.

(The Universal Apiaries)

## Bees SUNKIST Queens ITALIAN

We have openings in May for packages. Sorry—but we are booked through April at present. We may have more packages to offer later. We have openings in April and May for straight queen orders. We offer three banded Italians, live delivery, health certificate, satisfaction. 10 per cent books your order, balance 10 days before shipping.

	Queens	2-Lb.	3-Lb.
1-25	\$1.10	\$3.50	\$4.50
25-up	1.00	3.40	4.40

SUNKIST BEE COMPANY, Route 2, Box 9, Houma, La.

## ITALIAN BEES AND QUEENS

We appreciate your business in the past and trust that we shall have the pleasure of serving you this coming season.

	Queens	2-lb. pkg.	3-lb. pkg.
1-24	\$1.25	\$4.00	\$5.00
25-99	1.15	3.75	4.75

Queens bred of resistant stock. THREE BANDED.

Queenless package deduct price of queen.

**LUCEDALE APIARIES : Lucedale, Miss.**

### Italian Bees and Queens

2-lb. pkg. with queen	\$3.50
3-lb. pkg. with queen	4.50
4-lb. pkg. with queen	5.50

Health Certificate and safe arrival guaranteed. 20% deposit on booking orders.

**CLOVER BEE FARM**  
HESSMER, LOUISIANA

### CHOOSE LABELS WISELY

You Can't Go Wrong  
With A-B-J LABELS

They sell honey and are priced right.  
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American Bee Journal :: Hamilton, Ill.

conjunction with the Ohio Farm and Home Week, February 5, 6 and 7, the Ohio State University, Columbus, Ohio. The Beekeeping Section will cover the three days with the banquet scheduled for the evening of February 6th. Out-of-state and Ohio speakers will furnish talent to cover post-war problems confronting the Beekeeping Industry.

## A Simple Field Test For American Foulbrood

(Continued from page 14)

clean, and boiled 20 minutes in water before re-use.

The cooperation of beekeepers and inspectors in submitting reports of any interference with the test through water source, drug or chemical treatment, and the like, will be appreciated. For example, it has been noted that scales treated with formaldehyde fumes give a negative reaction. (1) Similarly, the test is retarded when scales are exposed to P-dichlorobenzene (PDB) vapors. On the other hand, sulfa drugs added to scales had no effect. Reports of any negative tests occurring with larvae in the very early stages of American foulbrood are also desired. In any doubtful cases the Division of Bee Culture Investigations of the Bureau of Entomology and Plant Quarantine will gladly make a laboratory analysis of the material.

(1) A. G. Lochhead, personal communication.

## Wood Mint

(Continued from page 17)

would probably result in cutting of the plants when in full bloom and thus greatly reduce the flowering time.

In the wild state its habit of growth is such that it can never be an important source of honey. As far as the writer has been able to observe it does not grow in mass but always in small scattered clumps. As a garden flower the quantity available would offer little help to the beekeeper so we find little hope of adding substantial bee pasture from this source. Its attraction for the bees is such that it is hard to understand how it could have been so completely overlooked.



## 1946-ITALIAN PACKAGE BEES & QUEENS-1946 QUEENS—LIGHT ITALIANS

*We solicit the Queen trade from Package Shippers all over the nation*

We were never out of queens in 1945, in spite of the unusually heavy demands. Place your order where you can rely on getting your queens when you want them. Write for our special prices on large orders, as well as our folder that will show what others think of the quality of our queens and packages, as well as our dependable service.

2-lb. with queen . . . . \$4.00  
3-lb. with queen . . . . 5.00  
Extra queens, each . . . . 1.25

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These servers hold  
one pound—good  
serviceable plastic tops.  
In U. S. only.

POSTPAID 30c EACH  
DOZEN LOTS \$2.75  
(Not Postpaid)

## Genuine Drip-Cut Servers

BEST THERE IS

Available only in limited number, so we offer them  
only for our customers' own gift use. Hold one pint.  
In U. S. only.

POST PAID 75 CENTS. THREE PREPAID \$2.00  
ORDER TODAY

**Dadant & Sons : Hamilton, Illinois**

## Three-Band Italian Package Bees

Full weight, prompt shipment. Young bees, state  
health certificate with each shipment. Live arrival  
guaranteed. Replacement or refund made promptly  
upon receipt of bad order from your express agent.

Our prices until June 10, 1946, each with queens,  
in U. S. funds.

Lots of	Queens	2-lb.	3-lb.	4-lb.	5-lb.
1 to 29	\$1.10	\$4.00	\$5.10	\$6.20	\$7.30
30 or more		3.50	4.50	5.50	6.50

For queenless packages deduct \$1.10 each from  
above prices. If queens are wanted introduced add  
\$1.10 to the price of each package.

**JACKSON APIARIES**  
FUNSTON, GA.



## Seeds of New Honey Plants

**Fifteen  
Packets, \$2.00**

A mixed collection of all those new honey plants you have been reading about. Each packet with directions for growing, type of plant, and all you need to make a honey plant garden for yourself in your own yard. Get your supply early before the limited amounts available are gone.

**Melvin Pellett**  
Atlantic, Iowa

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### Italian Package Bees and Queens

AT THE FOLLOWING PRICES

	1-24	25-49	50 up
2-lb. with queen	\$4.00	\$3.85	\$3.75
3-lbs. with queen	5.00	4.85	4.75

Full weight, live delivery. Prompt service guaranteed. No. C. O. D.

**Oscar Arnouville**  
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### Italian Package Bees and Queens

2-lb. package with queen	\$4.00
3-lb. package with queen	5.00
Queens, each	1.25

Add 25c per package for orders of less than 50 packages.

**JOHN S. SHACKELFORD**  
LIVE OAK, CALIFORNIA

### ITALIAN PACKAGES

Good bees, good equipment, good service. If your order is not already with us, let us know what you need and we will do our best to fill your order.

	2-lbs. with queen	3-lb. with queen
1-24	\$3.90	\$4.90
25-100	3.65	4.65

Queens \$1.25 each

**LOUIS L. COUCH**  
The Village Beekeeper  
PINEVILLE, LOUISIANA

## Classified Advertisements

### BEEES AND QUEENS

**GENTLE NORTHERN QUEENS** from prolific 3-banded Italian breeding stock, reared under natural conditions in large overwintered colonies. All shipments go by air mail starting June 1st at \$1.10 each. Please let me book a trial order and show some of these large fully developed queens. Prompt service, satisfaction. Barger Apiaries, Carey, Ohio.

**FOR SALE**—Now booking orders for nuclei in all sizes, bees, queens and packages for spring 1946 delivery. Prices upon request. Wm. Atch'ey, 132 Campus Ave., Upland, California.

500 3-lb. packages Italian bees with queen for April 1st to May 10th delivery, \$4.25 each, shipping point Redding, California. Deposit required to reserve shipping date. A. D. Wood, Meridian, Idaho.

**ITALIAN QUEENS** selected for winter hardiness, production, non-swarming and resistance to A.F.B. Ready June 15. Air mail extra. R. E. Newell and Son, Holliston, Mass.

**GREEN'S** profit-producing queens will please you as they have pleased hundreds of others. Famous the country over. Where could you do better? Price \$1.00 each. D. P. Greene, Route 2, Deland, Florida.

**BREWER'S LINE-BRED CAUCASIAN QUEENS**, breeding stock selected from 1000 field tested colonies for honey production and gentleness. Book your order now for April delivery at \$1.25 each. Inspection certificate furnished and safe arrival guaranteed. Brewer Brothers Apiaries, 3217 Hawthorne Rd. Tampa 6, Florida.

2000 3-lb. PACKAGES of Italian bees and queens available for delivery starting March 25 to May 1st. Shipping point Sacramento, California. Price \$5.00 each for 5 or more. J. E. Wing & Sons, Knights Landing, California.

**CAUCASIAN and CARNIOLAN** package bees April, May, 1946 delivery. Booking orders at 1945 prices. Tillery Brothers, Greenville, Alabama.

**TRY OUR THREE BANDED** Italian bees and queens for 1946. Booking orders now. Alamance Bee Company, Geo. E. Curtis, Mgr., Graham, N. C.

**PACKAGE BEES, QUEENS, Italians.** Circular free. Crenshaw County Apiaries, Rutledge, Alabama.

### HONEY AND BEESWAX WANTED

**CLOVER HONEY WANTED** in 60's. Large or small lots. Send sample and state quantity. Ellsworth A. Meineke, Arlington Heights, Illinois.

**WANTED**—Three tons of light extracted honey, clover preferred. J. Jones, 115 West 82 Street, New York 24, N. Y.

**HONEY WANTED**—60 lb. tins. Highest prices paid. What do you want? Write and send samples. New cans returned to you for each can sent to us. O'Donnell & Co., 4840 Drexel Blvd., Chicago 15, Illinois.

**WANTED**—Extracted honey. From 60 lbs. to carloads. Premium prices paid. Honey-moon Products Co., 39 E. Henry Street, River Rouge 18 Michigan.

**HONEY WANTED**—Top prices paid. Write immediately. J. Wolosovich, 6315 So. Damen Ave., Chicago, Illinois.

**HONEY WANTED**—All grades, carloads or less. Also beeswax. Pay top prices. H. & S. Honey & Wax Company, Inc., 265-267 Greenwich St., New York 7, N. Y.

**WANTED**—Extracted clover honey in 60's. B. I. Evans, Windom, Minnesota.

**WE PAY CEILING PRICES** for wax, and remit the day the wax is received. Your wax made into medium brood foundation at 12 c per lb. The Hawley Honey Co., Iola, Kansas.

**HONEY AND BEESWAX. HIGHEST PRICES PAID. MAIL SAMPLES. ADVISE QUANTITY.** BRYANT AND COOKINHAM, LOS ANGELES, CALIFORNIA.

**HONEY WANTED**—All grades and varieties. Highest cash prices paid. Mail samples. State quantity. HAMILTON & COMPANY, 1360 Produce Street, Los Angeles, California.

**WANTED**—Extracted honey, white or light amber, in 60's. Ed. Heldt, 1004 W. Washington St., Bloomington, Illinois.

**HONEY WANTED**—Small or large lots. Send sample and amount. Rocke Apiaries, Eureka, Illinois.

**CASH FOR YOUR WAX** the day received. Write for quotations and shipping tags. Walter T. Kelley Co., Paducah, Kentucky.

**ALL GRADES** extracted honey wanted. Bee supplies and honey containers for sale. Prairie View Honey Co., 12243 12th Street. Detroit, Michigan.

### SUPPLIES

**YOUR WAX WORKED** into quality medium brood foundation for 16c pound; 100 pounds \$12.00. Medium brood foundation for sale at 70c per pound. Fred Peterson, Alden, Iowa.

**ATTENTION BEEKEEPERS** IN MINNESOTA, Wisconsin, Iowa, N. D. and S. D. Buy Lewis-Dadant Bee Supplies and Honey Containers in Minneapolis and save. Send for price lists. **TOP PRICES PAID FOR HONEY AND BEESWAX IN CASH OR TRADE. HONEY SALES COMPANY.** 1806-08 No. Washington Ave., Minneapolis 11, Minnesota.

A new combined **CONTROLLABLE FEEDER AND SWARM CONTROL.** Useful also as inner cover, bee escape and robbing preventive board in queenlessness and drying wet combs; as winter top entrance and pollen feeder. Sample with directions, postpaid \$1.95; 5 (not assembled nor prepaid) for \$8.00. **NICOLLET COUNTY NURSERY**, St. Peter, Minnesota.

**INSTANT SEVEN AND NINE FRAME SPACERS.** Fast—Accurate. Fat combs, easy uncapping. Set does all supers. \$1.50 postpaid. **SPECIFY SIZE.** George Leys, 48 Drake Avenue, New Rochelle 2, New York.

**BEE SUPPLIES**—Large stock on hand. Simeon Beiler, Intercourse, Pennsylvania.

**HIVE BODIES,** covers and bottom boards, bee shipping cages and nuclei hives. All supplies new and knocked down. Price list furnished on request. **A & B Supply Company,** Coffee Springs, Alabama.

**PORTER BEE ESCAPES** are fast, reliable, labor savers. **R & E. C. Porter,** Lewistown, Illinois.

**WRITE FOR CATALOGUE.** Quality bee supplies at factory prices. Prompt shipment. Satisfaction guaranteed. **The Hubbard Apiaries, Manufacturers of Beekeepers' Supplies,** Onsted, Michigan.

**LARGE CASH SAVINGS** can be made by letting us work your wax into either wired or plain foundation. Large independent factory manufacturing a complete line of bee supplies including extractors, etc. Selling direct saves you the agent's profit. Quick shipment from large stock. Large free catalogue explains everything. **Walter T. Kelley Co., Paducah, Kentucky.**

## FOR SALE

70 colonies bees mostly 8 frame, two story, a few 10 frame and all equipment. A. H. Wilson, 701 Harrison, Canon City, Colorado.

FOR SALE—300 supers 9 combs each, guaranteed clean. Also 5 ton tank with movable cover. Write Andrews and Darst, Corona, California.

WILL SELL 1000 colonies or lease to party in good territory, or you can work for me for wages or package bees. Max Mayer, 525 Cucamonga Ave., Pomona, California.

FOR SALE—Six room house, other buildings. Electricity, about three acres of land, 200 colonies of bees in 10 frame equipment. Located in central Wisconsin. D. E. Baily, Rt. 2, Tigerton, Wisconsin.

1943 8-fr. (shallow) extractor with attachments for motor \$35.00. Paul Baldwin, Warsaw, Illinois.

BEEKEEPERS' HOIST—\$25.00, f.o.b.—Frt. prepaid in U. S. A. on two hoists to same address. Turner Mfg. Co., Corning, Iowa.

60 LB. HONEY CANS, mostly used once, 4 cans to wooden crate 75c; 2 cans to wooden case 50c. J. Wolosevich, 6315 So. Damen, Chicago, Illinois.

COMPLETE fully equipped outfit of 1500 hives, nuclei, extractor, tanks and established package and honey production in central and northern California. Al Winn, Rt. 1, Box 729A, Petaluma, California.

## WANTED

FOR RENT—Bees on shares. Operating 5000 colonies western Iowa. Will furnish site unit to suit. All good 10-frame equipment. Good locations. Bees are to remain on present locations. You must know the bee business. OLD TAYLOR HONEY CO., Harlan, Iowa.

WANTED—A good used Senior Brand capping melter. Albert J. Braun, Naples, New York.

WANTED to hear from owner of farm for sale for spring delivery. Wm. Holly, Baldwin, Wisconsin.

WILL BUY up to 300 colonies in south or southeastern states for producing early nuclei. Must have standard size Hoffman frames. Lyle G. Hoovel, Welcome, Minnesota.

WANTED TO BUY—Two or four frame extractor, reversible, hive bodies, and honey pump. Hubert Martin, Rt. 3, Corinth, Kentucky.

WANTED TO BUY—Need 8 frame equipment, supers, bodies, bottom boards, etc., new, Lose Bros., 206 E. Jefferson, Louisville 2, Kentucky.

WANTED—Partner, unmarried lady, in my bee business. My location is good and has a future. Paul Jakish, Star Rt., Klaber, Washington.

## POSITIONS AND HELP WANTED

WANTED—Young man to help in extracted honey production. Season April to November. State age habits, experience and salary expected. Board, room furnished. Lavern Depew, Auburn, N. Y.

WANTED—Well experienced married or single man to help in producing extracted honey. Rex Schlemmer, Edgar, Montana.

Will operate in my equipment up to 400 3-lb. packages on shares in my own equipment in Minnesota. Box 25, care American Bee Journal.

WANTED—A position in queen breeding and package business for my wife and I. I have clean habits, 20 years experience. H. G. Karns, Laurel, Virginia.

UNMARRIED LADY, with bee experience, wishes to be a partner in a progressive bee business. Box 5H, care American Bee Journal.

WANTED—Experienced helper for year round work. One half year in Texas, balance of season in Minnesota. No drinkers considered. Give age, experience and references. Write Box 60, American Bee Journal.

QUEEN BREEDER, also PACKAGE MAN for our Louisiana Unit. Write what you can do and wages expected. Only reliable, honest men need to reply. EPHARDT HONEY FARMS, INNIS, LOUISIANA.

INTERESTED, ten years' experience, discharged chief carpenter. Know bees. 31 years, 6 feet. Write particulars. L. C. Logan, Blue River, Wisconsin.

WANTED—Experienced beeman, one who could after a year take charge large modern apiary, irrigated section western state. Would consider partnership. Also want one helper. Give age, experience and reference. Owner has other interests. James Parnell, Oswego, Kansas.

WANTED—Experienced helper for 1946 season for very modern one-thousand hive unit in Iowa. Permanent year round work. State age, height, and wages expected. Box O, care American Bee Journal.

HELPER for 1946 season, March first to November. Send description of self and salary expected. Board and room furnished Honey Lee Apiaries, Godfrey, Illinois.

HELP WANTED for apiary work. Experienced or inexperienced. Married or single. Top wages to dependable help. M. E. BALLARD, Roxbury, N. Y.

WANTED—Discharged service man with experience handling bees to take charge of apiary. Must take partnership in business. Located in Midwest. Grand opportunity for good man. Write Box 123, American Bee Journal.

WANTED—Two men to work bees the year around. Could start work at once in our Arizona apiaries, and help harvest our crop in Idaho during summer. Good wages and chance for advancement. Give age, experience and references. POWERS' APIARIES, Parma, Idaho.

ONE QUEEN BREEDER or a good helper in outyards. Wicht Apiaries, 406 Miller St., Hattiesburg, Mississippi.

## MISCELLANEOUS

DRY SKIM MILK 35 cents a pound; 5 lbs. \$1.25. Brewer's yeast 40 cents a pound; 5 lbs. \$1.50. Soy flour expeller, 10 lbs. \$1.40. F. O. B. Bainbridge, N. Y. Write for prices in larger units. M. Y. S. Company, Bainbridge, New York.

SOY FLOUR for pollen substitute. "Special X" Soy Flour (Expeller Method) 5 pounds \$1.00; 10 pounds, \$1.75, postpaid. 25c additional west of Rocky Mountains. Remit with order. Spencer Kellogg & Sons, Inc., Decatur 80, Illinois.

INDIAN BEE JOURNAL—Official organ of the All India Beekeepers' Association. Yearly subscription price \$1.50 a year (7s 6d) by international money order. Address INDIAN BEE JOURNAL, Ramgarh, Dist. Naini Tal, U. P. India.

EARTHWORM CULTURE—Send postcard for valuable FREE bulletin, with review on "Intensive Propagation and Use of Earthworms in Soil-building." Thos J. Barrett, Earthmaster Farms, Box 488-H, Roscoe, California.

RANCH MAGAZINE—Do you find it difficult to secure information about sheep and sheep ranching methods? The SHEEP AND GOAT RAISER reaches more sheepmen with more information on range sheep than any magazine published. Subscription \$1.50. Hotel Cactus, San Angelo, Texas.

THE BEE WORLD—The leading bee journal in Great Britain and the only international bee review in existence. Specializes in the world's news in both science and practice of apiculture. Specimen copy, post free, 12 cents, stamps. Membership of the Club, including subscription to the paper 10/6. The Apis Club, The Way's End, Foxton, England.

DIFFERENT, that's all. Written and published for the instruction of beekeepers, contains breezy entertaining beekeeping comment each month. One year, \$1.00; two years, \$1.50. Sample 3 cents stamp. Beekeepers Item, San Antonio, Texas.

## SEEDS AND TREES

SEEDS of Honey Plants—Improve your bee pasture. For your trial we offer one packet each of fifteen plants for \$2.00 postpaid. Write for free circular describing new forage crops, ornamentals and waste land plants, good nectar producers.

Melvin Pellett, Atlantic, Iowa.

BY EXPRESS Collect. Transplanted American Basswood trees, 4-5 ft., \$1.00; 5-6 ft., \$1.75; 6-8 ft., \$2.25; 8-10 ft. \$3.00. Earlier blooming European Basswood trees, 4-5 ft., \$2.00, 3-4 ft., \$1.50. French Pussy Willows (early pollen producers) 3-4 ft., 60c; 4-5 ft., 90c each. Red Barked Dogwood and Pink Tartarian Honeysuckle shrubs 12-18 inch, \$8.50 per 50. Write for our NECTAR and POLLEN producing shrub and tree postpaid \$1.20 collections, and circulars. NICOLLET COUNTY NURSERY, St. Peter, Minnesota.

FOR SALE—Sainfoin seed. Over 10 lbs., 55c per lb. Less, 75c per lb., not postpaid. Perennial legume, soil builder, hay crop and honey plant. R. W. Brimhall, Pleasant Grove, Utah.

## FOR SALE

100 or 500 colonies bees—all doubles. \$10.00 without locations, or \$12.00 with locations. QUEENS \$1.25 each.

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Timely topics on western Canadian beekeeping and all the news about Canada and Canadian markets. You cannot afford to be without the most up-to-date information in these days of great changes. Sample copy free. Address WESTERN CANADA BEEKEEPER, Wallingford Building, Winnipeg, Manitoba, Canada.

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We wish to thank all of our many customers for their orders during the past season.

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STOUGHTON, WISCONSIN

## THRIFTY QUEENS

Combless Packages and Queens  
THREE-BANDED ITALIANS ONLY  
Write for 1946 prices and open dates

W. J. FOREHAND & SONS  
FORT DEPOSIT, ALABAMA

Breeders Since 1892

## ROOT QUALITY BEE SUPPLIES

GLASS AND TIN CONTAINERS  
HONEY AND BEESWAX WANTED

M. J. BECK CO.

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## BOOKING ORDERS FOR 1946

for our bright Three-Banded Italian Queens and Package Bees. Prices:

	Queens	2-Lb.	3-Lb.	4-Lb.	5-Lb.
1-24	\$1.25	\$4.00	\$5.10	\$6.20	\$7.30
25-99	1.15	3.75	4.80	5.85	6.90
100 up	1.05	3.50	4.50	5.50	6.50

We ask 10% deposit with orders booked in advance. We guarantee safe arrival, satisfaction.

TAYLOR APIARIES : Box 249, Luverne, Ala.



### Soy Flour and Pollen Traps

We are distributors of Staley's Lo-Fat, High Protein expeller processed soy flour for beekeepers. We offer the finest quality in soy flour and pollen traps.

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### Italian Bees and Queens

Prices to June 1

	Queens	2-Lb.	3-Lb.	4-Lb.
1-24	\$1.25	\$4.00	\$5.10	\$6.20
25-99	1.15	3.75	4.80	5.85
100 up	1.05	3.50	4.50	5.50

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3 years \$1 or send 2 cents stamp for sample copy. Address ASHEVILLE, N. C.

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# Crop and Market Report

Compiled by M. G. Dadant

For our January, 1946 report, we asked reporters to answer the following questions:

1. How much of 1945 crop remains?
2. Do stores still have honey to offer?
3. Any increase contemplated for 1946?
4. Are hives, frames and foundation obtainable?
5. How is the winter so far?

### Old Crop Remaining

Practically all honey is out of the hands of beekeepers or such as is not held for regular trade. The packers seem to be better supplied than had been first anticipated and this is particularly true of the cooperatives, although the independent packers have been able to accumulate considerable quantities of honey to carry along their trade fairly well.

### Honey in Stores

While honey is often unobtainable from the beekeeper, stores have been in most instances in a position to fill orders for small packages of honey and the distribution on the part of the small and large packers has been quite satisfactory. Whether the amounts in reserve are sufficient to carry over until the new crop is available is quite questionable. It is perhaps true, however, that the demand for small packages is not quite as heavy as for larger ones, where they go in for honey in the place of sugar, whereas the small package perhaps is for the use of honey itself. We believe that the distribution is much more general through stores than it has been in a long time and this applies particularly to the stores in the moderate and large size cities where the supply is made by packers.

### Increase

Yes and no, run our replies to the

### HONEY WANTED

Cars and less than cars  
Top Prices

C. W. AEPPLER CO., Oconomowoc, Wisconsin

question as to whether there is to be increase. Undoubtedly there will be considerable increase on the part of those who have not yet reached a maximum and especially on the part of the beginner going into the business. It is likely that the increase anticipated is sufficient to make about what the Department of Agriculture would like to have, namely 8 per cent in order to furnish additional pollination for the fruits and flowers. Occasionally, an old beekeeper is increasing on account of being again able to get more help or on account of returning boys. However, much of the increase is coming from the newer beekeeper and from the entirely new one in the business.

### Bee Supplies

Apparently bee comb foundation is obtainable in most instances either directly or through the working of beeswax, and there seems to have been no hold up on this angle of bee supplies. In some instances, hives and frames have been purchased in sufficient quantity early enough to carry on the operations for the ensuing season. However, in many other instances, hive bodies are unobtainable and frames nearly as bad. It is hoped that the efforts on the part of the department of Agriculture to see that bee supply dealers get sufficient lumber for insuring the increase the Department wants may solve itself into action and the possibility that supplies may become easier as the season advances.

### Wintering

Never have we had a monthly report where the unanimous opinion that the bees had gone through in such nice condition and that the wintering was proceeding satisfactorily. Most reports came in ahead of the December 15 cold snap, but even so, conditions were in many cases ideal. This is not quite so true of California

### HONEY WANTED Carloads or Less HIGHEST PRICES PAID

**LEWIS A. KONCES CO.**  
NORTH ABINGTON, MASS.

AMERICAN BEE JOURNAL

and a few other sections where the honey crops were unsatisfactory. California we would anticipate is no more than average in wintering condition of the bees, and perhaps no more than average if that high on the moisture.

#### Summary

At this season of the year it is quite difficult to make any prognostications on what the new season is going to be, and naturally with no reports particularly to make of the crop because of the ease with which the entire 1945 crop is being disposed of, one is at a loss on how to fill a crop and market report page.

However, the sugar situation does not seem to have eased greatly and many government authorities are anticipating that it may be yet close to a year before the shortages are at least partly alleviated. Such will also depend upon the demand from the European countries.

While the urging on the part of the Department of Agriculture for bees for pollination may influence some to go into the handling of bees, undoubtedly many were pointed in that direction and the increase will likely be shown regardless of this influence. We look for it to be perhaps another year or two before the necessity for bees in pollination of our farm legumes is sufficiently impressed on the farmers so that they may want to get their own bees or to hire bees for pollination of the clovers even to the red clover where beginning experiments would indicate that the bees may profitably be rented for red clover pollination with a decided benefit to the seed crop.

#### Honey Does It

I use honey for sweetening coffee. For five years each day my left ear spent hours ringing in a very annoying fashion. This completely disappeared when I began using honey in my coffee. It only reappears when I eat sugar or candy.

R. H. Tillson,  
Missouri.

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Cleveland, 4, Ohio Kansas, City Mo.

#### Three Band Italian Bees with Queens for 1946

2-LB. ....	1 to 24	24 to 48	48 Up
3-LB. ....	\$4.00	\$3.75	\$3.60
	5.00	4.75	4.60

E. R. RALEY, 710 W. Altamaha St., Fitzgerald, Ga.

## 1946

Again the demand for our packages and queens will be much greater than we can supply. As always we will book only what we can ship with little delay. . . . ITALIANS . . . CAUCASIANS

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BY FLORENCE NAILE

215 pages—cloth bound

Every informed beekeeper knows that our modern system of beekeeping is based on the movable comb hive as invented by L. L. Langstroth nearly a century ago, but few know that dozens of the fundamentals of bee manipulation and of bee activities were first expounded by Langstroth. Read of his life in this interesting book.

The inventions of Bee Comb Foundation and of the honey extractor were great for modernizing beekeeping. But neither would have had great significance without Langstroth's movable comb hive.

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**Hamilton, Illinois**



#### Gooch's Best Bees and Queens

Book Your Order Now For Spring Delivery

Bright Yellow and Three-Banded Italians. Both are gentle, prolific and good honey gatherers. We do not breed from any queen who does not produce as much as 300 lbs. surplus honey. We guarantee to ship bees within 5 days of time agreed upon. Write for prices on large quantities. 5% discount to veterans.

Queens	2-Lb. Bees and Queen	3-Lb. Bees and Queen
\$1.25	\$3.90	\$4.90

**JESSE E. GOOCH & SONS, R. F. D 3, Pine Bluff, Ark.**

#### PERFORMANCE

Is what you buy when your choice is daughter queens of the "DR" strain which has been bred continuously for resistance to A. F. B. Satisfaction is being expressed by an ever increasing number of users in every honey producing state. No change in prices. Write for shipping dates.

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STATE HOUSE, DES MOINES 19, IOWA

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Hardy Leather Colored ITALIANS  
Fast Conscientious Service.

2-lb. with queen .....\$4.00  
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25c per package extra for small orders.

Book now for '46

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**We Can Book a Few More Orders  
FOR 1946**

At prevailing prices.

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THREE-BANDED ITALIANS

96% Baby Bees and 4% Teachers.

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3-lb. pkg. bees and queen at..... 5.00

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Join a progressive cooperative now and safeguard your future market. We need the honey at ceiling prices. You need us to safeguard the time when selling is hard. Join now.

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Box 251 MILTON, PA.

# The Postscript

R. M. Kellog, of Beaumont, California, suggests that beemen must scatter desirable honey plants on waste land to compensate for the overstocking, burning and plowing that have reduced the bee pasture to the point where large outfits are no longer profitable in many places. He also suggests that selection of bees with the ability to fly longer distances may help.

In regions where there is much waste land the beekeeper can do much to improve his pasture by introducing suitable plants. In areas of intensive cultivation there is not much for him to do but to move, or interest local farmers in new plants which are useful for bee pasture as well as commercial utilization.

The retirement of L. T. Floyd, as provincial apiarist of Manitoba, revives pleasant memories for me. It was my privilege to visit Floyd at Winnipeg soon after he took up his work there. There was no beekeeping industry in western Canada in that day and few were so optimistic as to think that honey production could be important in that region. Floyd is generally credited with arousing public interest in bees and encouraging the effort that has resulted in the production of millions of pounds of high quality honey.

I wonder how many Manitoba beekeepers remember the day that I was invited to speak at a big field meeting only to have a skunk run through the crowd and break up the assembly. The emergence of a swarm also offered another complication which proved more interesting than the speech. A few may remember the skunk or the swarm but it is safe to say that nobody remembers what was said on that occasion. Some who were present out of curiosity later took up beekeeping seriously and produced big crops of honey.

We have long sought information regarding the value of Alyce Clover for bees and are grateful to Wm. W. Wicht, of Hattiesburg, Mississippi, for telling us that after close observation he has failed to find any in-

sects visiting the bloom. Apparently the small flowers do not yield nectar. The Kudzu vine also fails to attract the bees with him. It is a disappointment to learn that these new legumes which are coming into use in Southern agriculture are useless to the beekeeper. A search should be made for useful legumes suited to that region which are the source of abundant nectar. The honey plants on which the beekeepers formerly depended are disappearing from many localities. Apparently little effort is made to find new ones to replace them.

From Manitoba, where for many years we had reports of very large honey crops, we hear that this season's crop was very spotted. W. J. Bougen, of Valley River, one of the first to plant sweet clover as a farm crop, reports about 90 pounds as his average but some admit only 30 to 45 pounds. Numerous letters coming to us from that province evidence real concern for the future of bee pasture in Western Canada.

V. W. Sabin, of Spokane, Washington, sends specimens of the blossoms of strawberry clover which he found along the shore of Moses Lake. He writes that the lake is in a very arid region and the soil is so heavy with alkali that there is no other vegetation along the shore. The flowers are about the size and similar in appearance to the fruits of strawberry. This clover is said to be the most salt tolerant legume known and is highly recommended for alkali lands. Bees are reported as getting much nectar from the flowers. Beemen located in alkali areas will do well to try this clover.

Dr. August P. Beilman, manager of the arboretum of the Missouri Botanical Garden at Gray Summit, has made some interesting observations of bees visiting the trees under his care. He finds that bees work the flowers of the Pagoda Tree with the same rush as basswood. The Golden Rain Tree also appears as valuable in some seasons but it has a short flowering period. So many bees visited the boxwood that he has

decided that boxwood may prove to be a good honey plant.

With the resumption of highway improvement it is highly important that attention be called to the value of some of the better nectar bearing trees for bee pasture. Memorial parks and large private estates often use a sufficient number of trees to provide a considerable amount of bee pasture.

Creeping alfalfa has proved disappointing in our test garden. It seems unsuited to our soil or climate. It is highly susceptible to leafspot and sheds so many leaves as to offer little value as forage. We are still searching for a long lived alfalfa which will seed freely and at the same time yield the usual amount of forage. Because of its creeping habit there has been much interest in the new alfalfa and it was hoped that it might prove desirable for permanent meadows. In localities where it finds a favorable environment it should be very useful.

A. G. Woodman is making an effort to establish purple loosestrife around ponds, lakes and along small streams in the vicinity of his Michigan apiaries. This plant will grow in wet spots, even in shallow water and we are getting reports of good yields of surplus honey in some places where it is common. Once established it will maintain itself very well and spread slowly in surrounding areas. The seed is very fine and is easily wasted when scattered in the open. If enough seed is available to spread over a large area some is likely to grow and thereafter will care for itself. It is far better to have unused lands occupied by good honey plants than by the coarse weeds so often growing there.

A good way to establish new plants on waste lands is to start them in window boxes or a greenhouse and when a few inches high transplant to the open ground. By setting live plants here and there over widely scattered spots one can get them started and watch the natural increase from year to year. Figwort, motherwort and wingstem are tall growing plants well suited for such purpose.

Low growing plants include horehound, marjoram, salvia pratense and salvia superba as well as catnip. Purple loosestrife already mentioned is the best available honey plant for boggy places but it will grow also on uplands. —FRANK C. PELLETT.

AMERICAN BEE JOURNAL

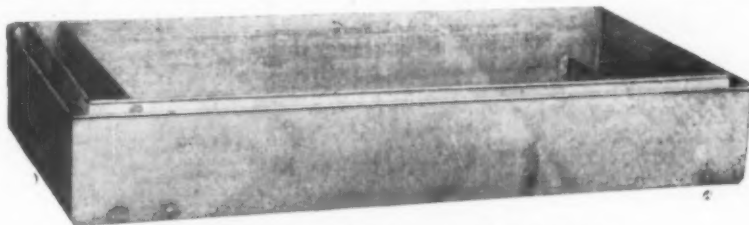
### Gaspard's Quality Italian Queens and Package Bees

We are now booking orders for the Spring of 1946. Only 20% with order balance at shipping time. Prices as follows:

2-lb. package with queens	\$3.50
3-lb. package with queens	4.50
4-lb. package with queens	5.50
5-lb. package with queens	6.50

Comb packages with one frame of brood and honey, add \$1.50 per package.

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NEISES GRAVITY HONEY CLARIFIER  
(Decanter Tank)

MODERNIZE YOUR HONEY HOUSE BY INSTALLING A  
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between your extractor and storage tanks

**It is not a lot of work, so why not do it now**

and have everything set for the honeyflow next summer

**REUBEN NEISES : 908 S. Cherry St. : Marshfield, Wis.**

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Because of shortages in 1945 many beekeepers were disappointed on delivery of supplies. Don't let that happen to you in 1946—ORDER NOW WHILE SUPPLIES ARE AVAILABLE.

No. 14—4-Frame Non-Reversible Honey Extractor (hand power)	\$14.75
10-Frame Size Wire Queen Excluders, Wood Bound, 5 or more, each	.80
Wire Face Bee Veils, each	.50
Bee Escapes, each	.12
Smokers, 4x7, each	1.00
2 Inch Hive Staples (for moving bees) per lb.	.30
5—10-Frame, 1 Story Metal Covered Hives	14.75
100 Hoffman Brood Frames, per 100	5.05
1 lb. Glass Honey Jars, packed 2 dozen, per case	1.00
2 lb. Glass Honey Jars, packed 1 dozen, per case	.90
5 lb. Glass Honey Jars, packed 1/2 dozen, per case	.55
10 lb. Friction Top Honey Pails, packed 50, per case	5.00
5 lb. Friction Top Honey Pails, packed 50, per case	3.75
Bee Gloves, per pair	.75
COMB FOUNDATION—25 lb. Lots Thin Surplus (following sizes)	
3 3/8x16, 4 1/2x16 3/4, 4 1/2x17 1/4, 3 11/16x14 1/4	19.75
25 lb. Lots "Hercules" Wired Brood, 8x16 3/4, 8 1/2x16 1/2	18.50
25 lb. Lots "Hercules" Plain Brood, 8x16 3/4, 8 1/2x16 1/2	17.50
Brood Foundation Sizes, 8x16 3/4 or 8 1/2x16 1/2	

HAVE YOU TRIED OUR "HERCULES" WIRED "IRONSIDES" FOUNDATION? WITHOUT A DOUBT THE BEST FOUNDATION ON THE MARKET. DON'T TAKE OUR WORD, TRY IT, SEE FOR YOURSELF. Size 8 1/2x16 1/2 only.

10 Sheets \$1.35 50 Sheets \$6.50 100 Sheets \$12.50

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WE WILL BUY YOUR HONEY AND BEESWAX AND PAY THE CEILING PRICES. NO LOT TOO LARGE OR TOO SMALL. WRITE US.

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**THE FRED W. MUTH COMPANY 229 WALNUT STREET CINCINNATI, 2, OHIO**

**"You can get your bees on time if you order early"**

QUEENS \$1.25 each; 25 to 50, \$1.15; 55 to 100, \$1.05

2-Lbs. \$4.00; 3-Lbs. \$5.00. Full weight and live bees guaranteed. Write for prices on large orders.

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Place your orders early to get shipping date when wanted. World War II veterans first served. Large orders, write for prices. 2-lb. with queen \$4.00; 3-lb. with queen \$5.00; Queens \$1.25. Resistance queens direct from government queen at same price.

Homer W. Richard : Rt. 3, Box 252-A, El Dorado, Ark.

## "Honey Girl" Italian Package Bees

Package	1 to 4	5 or more
2-lb. bees with queen, each	\$4.25	\$4.00
3-lb. bees with queen, each	5.25	5.00

ST. ROMAIN'S "Honey Girl" APIARIES  
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## SOYBEAN FLOUR

### EXPELLER PROCESS

For use in supplementing natural pollen for spring buildup

5 pound package, postpaid east of Rockies	\$1.00
5 pound package, postpaid west of Rockies	1.25
100 pound bag, f.o.b. mill, Decatur	5.90
500 pounds or more, f.o.b. mill, Decatur, per hundred	5.65
2000 pounds or more, f.o.b. mill, Decatur, per hundred	5.40
Carload, f.o.b. mill Decatur, per hundred	5.15

Cash with order, C.O.D. Instructions for mixing with all orders.

SHELLABARGER SOYBEAN MILLS, Decatur 30, Ill.

## ITALIAN PACKAGE BEES AND QUEENS

On the same old Basis—QUALITY, SERVICE, SATISFACTION

2-lb. bees with queen	\$3.85
3-lb. bees with queen	4.85
4-lb. bees with queen	5.80

Queenless packages deduct \$1.00. Write for prices on comb packages.

E. J. BORDELON APIARIES : Box 33, Moreauville, La.

## QUEENS, ITALIANS, Package Bees

The following prices will be effective until further notice on our queens and packages for spring of 1946

Quantity	Queens	2-Lb. Package	3-Lb. Package
1-24	\$1.25	\$4.00	\$5.10
25-99	1.15	3.75	4.80
100 up	1.05	3.50	4.50

Bessonnet Bee Company : Donaldsonville, La.

## ITALIANS

## QUEENS

## CAUCASIANS

Daughters of Queens  
bred for Resistance

Bred to Italian  
Drones

All three races bred in sep-rate yards.

2-lb. pkg. bees with queen	\$4.00	Extra queens \$1.25 each.	Over 25 years
3-lb. pkg. bees with queen	5.00	a shipper in U. S. A. and Canada.	

Sulfathiazole used in feed at no extra cost to you. MASTER MIX POLLEN made from soybean flour, cottonseed meal, brewers yeast, skim milk, natural pollen, invert sugar and Sulfathiazole, 10-lb. pail \$2.50; six pails \$13.50. Send for FREE Circulars.

Blue Bonnet Apiaries, R. 2, Box 23, Weslaco, Texas

## BETTER BRED QUEENS—THREE BANDED ITALIANS

We appreciate your business in the past and solicit your future business on the merits of our service and quality. Prices to be the same as last year.

CALVERT APIARIES

Calvert, Alabama

## Grape Fruit - Oranges

RED BLUSH Grape Fruit \$2.75 a bushel. Pink-meated, seedless, tree-ripened. Tree-ripened Oranges \$3.50 a bushel.

MIXED BASKETS of Red Blush Grapefruit and Oranges at \$3.25 a bushel. All F. O. B. Brownsville.

Express rates \$1.13 to \$2.37 a bushel, depending on your location. Reference, Dadant & Sons, Hamilton, Illinois, who purchase my fruit. Complete price list on request.

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"BEST IN THE WEST"

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Add 25c per package for orders of less than 50 packages. Circular Free.

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3-BANDED ITALIAN PACKAGE  
BEES AND QUEENS ARE  
EXCELLENT

Our recommendation to you: Ask our customers.

Accepting orders for 1946 packages that will be shipped on time.

WICHT APIARIES  
406 Miller Street : Nattiesburg, Miss.

## Northern California Package Bees—Queens

### ITALIANS ONLY

2-lb. package with queen	\$4.00
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Queens, each	\$1.25

Add 25c per package for orders less than 25 packages.

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## Years' Experience

### Our Golden Anniversary

The year 1946 marks the 50th year of continued service in the manufacture of beekeepers supplies.

With this wealth of knowledge and experience we feel we are in better position than ever to give our customers that valued quality and service that has meant so much to them in the past 50 years.

In order to assure yourself of that continued service we suggest you order early this year. Although we have an ample supply of HONEY SECTIONS, HIVE BODIES, SUPERS AND FRAMES at present, from all indications the year 1946 will make even greater demands on the industry.

Write for our SPECIAL PRICE on number two (2) beeway sections ( $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{7}{8}$ ); also ask for our new 1946 price list of supplies now on hand and available to our customers.

**MARSHFIELD MFG. CO.**  
MARSHFIELD, WISCONSIN

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### Italian Bees and Queens

"Magnolia State" Strain

A New Year has appeared upon the scene. What it holds in store for humanity no one can predict. One thing is sure; it holds possibilities for those forward looking individuals who shoulder their responsibilities and carry on to the best of their abilities, and capitalize on the good breaks.

The first consideration of the beekeeper should be a hardy, hustling, productive stock of bees. Good queens are the "first" requisite in good apiary management. Ample equipment and labor saving devices are good seconds.

Results secured and reported to us by our customers indicate we are succeeding in some measure in our efforts to produce "the better bee."

#### PRICES

	Queens	2-lb. pkgs. with queens	3-lb. pkgs. with queens
1-24	\$1.25	\$4.00	\$5.10
25-99	1.15	3.75	4.80
100 up	1.05	3.50	4.50

Thanks for past favor, and a Happy and Prosperous New Year to All.

**JENSEN'S APIARIES**  
MACON, MISS.

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**BETTER BEEKEEPING  
LARGER PRODUCTION**

Beekeeping is a business, important, ever growing, full of promise. As certain as the need of foods throughout the world, will be the want of honey for sweets and the need of bees for pollination.

The production of honey and beeswax can be greatly increased. The best in knowledge, methods, bees and equipment will do it. We will help with the best in books and literature and needed supplies as much as possible. You may help yourself by ordering the things you will need early this year.

Will you let us plan now to take care of your need of supplies.

**WE WANT HONEY AND BEESWAX IN  
TRADE FOR SUPPLIES**

**A.I. Root Co. of Chicago**  
224 West Huron Street  
CHICAGO, ILL.

## Greetings for 1946

Please accept our best wishes and we hope 1946 will be a banner year for all.

### PACKAGE BEES

will be important in the production of the maximum crop of honey this year. Quality Packages and Service will be our aim in filling your orders.

#### NO CHANGE IN PRICES

2-lb. package with queen	\$3.50
3-lb. package with queen	4.50

Satisfaction guaranteed

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Box 133 : Moultrie, Ga.

# 1946

**B**EEKEEPING is at last recognized as a valuable part in our food production program. Never have bees been given so much favorable publicity in farm papers and government circulars as during the years just past. Beekeepers are no longer the forgotten group. The fulfillment of the clover seed production program will necessitate more colonies of bees. Government agencies recognize the importance of bees for pollination purposes and are doing everything possible to have proper amounts of raw material allocated for manufacturing bee supplies.

ROOT QUALITY BEE SUPPLIES will play an important part in this program, for beekeepers have long recognized the fine qualities of Root's Triple-Locked Corner Frames, Three-ply Foundation, Simplicity Extractors, Standard Hives, etc.

You will probably have to wait a little while before you will receive that prompt delivery service on your order, but when the Root Quality Supplies arrive, you will say with thousands of other customers, "They are the best."

Mail a list of your needs and we will give you the latest information on supplies.

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## BEST WISHES FOR 1946

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**The A. I. ROOT CO.**  
Medina, Ohio